CIVIL FUNCTIONS, DEPARTMENT OF THE ARMY, APPROPRIATIONS, 1953

MONDAY, MAY 12, 1952

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D. C.

The subcommittee met at 1 p. m., pursuant to notice, in room F–39, the Capitol, Hon. Kenneth McKellar (chairman) presiding.

Present: Senators McKellar, Ellender, Knowland, Young, and Cain.

CORPS OF ENGINEERS

CALIFORNIA FLOOD-CONTROL PROJECTS

Chairman MCKELLAR. The subcommittee will come to order, and Senator Knowland is recognized.

Senator KNOWLAND. I wish to express my appreciation to Senator McKellar, the chairman of this subcommittee, and also the chairman of the full Appropriations Committee, for his courtesy which he has shown the State of California in arranging this meeting at this time to fit in with the trip which our California witnesses had planned to make.

I want to say for the record that Senator McKellar served in the House of Representatives with my father. I am the second generation of the Knowland family to serve.

I have always found that in matters affecting our State, as well as the rest of the country, that he has been deeply interested in these problems relating to flood control and the building of our great national assets.

I did not want this time to go by, Senator, without expressing to you my very deep appreciation for your courtesy.

Chairman MCKELLAR. That is certainly very kind of you.

I am interested in these projects. I might say that there was no disagreement or anything of that kind, but I once had a big fight over projects of this kind in committee and on the floor before we had the Tennessee Valley Authority. I think it would surprise a great many people that it was a California Senator, and a Republican Senator at that, who voted with me and saved the day.

Senator KNOWLAND. Mr. Chairman, before calling the witnesses who are here, I should like to place in the record a letter of mine addressed to General Pick, dated March 25. It is a short letter. I will read it. I will not read his reply, but will ask that it go in the record.

MARCH 25, 1952.

DEAR GENERAL PICK: As you know, California has experienced a year of heavy rainfall and at the present time has one of the heaviest snow packs in the history of the State of California. Needless to say the State is very apprehensive over the problems which might develop when the snow begins to melt and run off.

The heavy runoff which the State expects could create a serious flood problem entailing the inundation of land and destruction of private and public property, which might run into substantial figures.

Will you advise me of the plans which have been worked out between the Bureau of Reclamation and the Corps of Engineers to prepare for the control of runoff water during the next 150 days?

With kindest regards, I remain,

This went to the Chief of the Corps of Engineers, and I have his reply. Also it went to the Commissioner of the Bureau of Reclamation, and I have his reply.

(The replies referred to follow:)

UNITED STATES DEPARTMENT OF THE INTERIOR,
BUREAU OF RECLAMATION,
Washington 25, D. C., April 3, 1952.

Hon WILLIAM F. KNOWLAND,
United States Senate, Washington 25, D. C.

MY DEAR SENATOR KNOWLAND: Your letter of March 25, 1952, inquires as to the plans worked out between the Bureau of Reclamation and the Corps of Engineers to prepare for the control of runoff water during the next 150 days that may be expected from the melting of the heavy snow pack in California.

There is an informal agreement between the Corps of Engineers and the Bureau of Reclamation on how Shasta and Friant Dams are to be operated for flood control. There is frequent contact between representatives of the Bureau and the corps; and recently steps were taken to establish a semiformal relationship among the Bureau, corps, and the State engineer of California. Such relationships have had more than their usual importance this year as it has been apparent since January that the spring of 1952 was likely to be one of high runoff.

Operation of Shasta and Friant Dams for flood control began during February with flood-control releases of 565,700 acre-feet from Shasta Reservoir and 191,700 acre-feet from Millerton Lake. Between March 1 and March 13 approximately 52,000 acre-feet were released from Millerton Lake. However, between March 3 and March 20 much above normal precipitation occurred on the San Joaquin drainage basin indicating a need for additional storage. Releases from Millerton were tripled and are now at the limit of channel capacity. Miller and Lux Canal companies and Southern California Edison Co. are cooperating to carry out maximum flood control. In the case of Shasta Reservoir, releases for flood control have been coordinated to the greatest degree possible with releases for power production, the result being that power produced at Shasta Dam has been the greatest of record for this time of the year.

It is expected that storage available in Shasta Reservoir will be enough to control any flood resulting from normally expected weather conditions during the remainder of the runoff season. Unless there is exceptional and unexpected tributary inflow below Shasta Dam no excessive discharges are expected in the Sacramento River as far down as Sacramento.

Equal reassurance cannot be given in the San Joaquin River basin. Despite Millerton Lake being drawn down well below usual operating levels the above normal runoff expected in the San Joaquin River Basin cannot be controlled by the storage available in Minnerton Lake. If there was a greater capacity in the channel below Friant Dam there would be a greater degree of control possible. However, it is understood, at recent meetings, local interests have informed the Corps of Engineers that there is less interest in providing channel capacity than there is in providing additional storage.

You may be assured that the Bureau of Reclamation and the Corps of Engineers, together with the State of California and local interests, are working to utilize existing facilities to the greatest possible extent to prevent, or if this is not possible, to mitigate flood damages in the Central Valley of California this year.

Sincerely yours,

GOODRICH LINEWEAVER,
Acting Commissioner.

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, D. C., April 23, 1952.

Hon. WILLIAM F. KNOWLAND,
United States Senate, Washington, D. C.

DEAR SENATOR KNOWLAND: Further reference is made to the letter of March 25, 1952, signed by yourself and Senator Richard M. Nixon, requesting information as to what plans have been worked out between the Corps of Engineers and the Bureau of Reclamation in preparation for an anticipated flood problem in the State of California.

The winter rainy season in northern California has been abnormally wet. Precipitation both on the valley floor and in the mountains has been from 150 to 200 percent of normal. Snow depths on both eastern and western slopes of the Sierra Nevada have generally been greater than have been observed since 1890. Preliminary snow surveys at a few accessible snow courses on February 1 and March 1 indicate that the water content of the snow pack may be generally from 175 to 225 percent of normal. Comprehensive snow surveys by the California Cooperative Snow Surveys (with the assistance of both the Corps of Engineers and the Bureau of Reclamation) to accurately define the size of the snow pack and the flood hazard during May and June will be completed in the near future. Such data as is now available indicates that the volume of snow-melt runoff will be very large on all major rivers in the Sacramento-San Joaquin-Tulare Lake Basins and in the east side Truckee, Carson, and Walker Basins. During May and June, periods of high temperature probably will cause dangerously high stages along San Joaquin River and its principal tributaries, along the main rivers in the Tulare Basin and in Tulare Lake, and at Lake Tahoe and other east-side basins. In addition, combinations of high flow with tides and wind may cause dangerously high stages in the Sacramento-San Joaquin Delta. In the Sacramento Basin, the large channels of the Sacramento River flood-control project will probably be able to pass the expected high flows without trouble.

The Bureau of Reclamation's Shasta Reservoir at the head of Sacramento River has been designed to provide flood control on the upper reaches of Sacramento River in conjunction with the Corps of Engineers Sacramento River flood-control project. The Corps of Engineers, in cooperation with the Bureau of Reclamation and the State of California, developed a complete system of flood-control operation for this reservoir which would assure control of all known or reasonably anticipated floods on this stream.

This system of flood-control operation has been furnished to the Bureau of Reclamation in advance of publication in the Federal Register. Continuous contact with the Bureau of Reclamation has been established by our field representatives as to the operation of the reservoir for flood control, and they are prepared to furnish advice and assistance, if necessary, to the Bureau in carrying out this flood-control operation. During the severe rain flood season which has just passed, Shasta Reservoir successfully prevented any serious flood damage along Sacramento River and probably will also be successful in preventing flood damage during the expected snow-melt flood season.

Similarly the Bureau of Reclamation's Friant Reservoir at the head of San Joaquin River has been designed to provide flood control on the upper reaches of San Joaquin River. A complete system of flood-control operation which would assure control of all known rain floods, and of most snow-melt floods, was developed cooperatively by the Corps of Engineers, the Bureau of Reclamation, and the State of California, and was furnished the Bureau of Reclamation for use in advance of publication in the Federal Register. Our field representatives are also in continuous contact with the Bureau of Reclamation, as to the operation of the reservoir for flood control, and are prepared to furnish advice and asistance, if necessary, in carrying out this flood-control operation. In contrast with Shasta Reservoir, the downstream channels have not as yet been developed to pass without damage the full quantity of flow contemplated in the complete system of flood-control operation and some residual downstream damage may occur. During the severe rain flood season which has just passed, Friant Reservoir successfully prevented any flood damage along the upper reaches of San Joaquin River. However, during the coming snow-melt flood season, Friant Reservoir will probably be unable to completely control flows to nondamaging levels because of the anticipated excessive volume of snow-melt runoff. Emergency measures to minimize flood damage downstream from Friant Dam are currently being planned in coordination with the Bureau of Reclamation and the State of California.

In addition to the above reservoirs, the Corps of Engineers has placed Big Dry Creek, Mariposa, Owens, Burns, and Farmington flood-control reservoirs in operation in advance of full completion of these projects and have accomplished quite a high degree of flood control during the past severe rain flood season on the small streams controlled by these reservoirs. Our multipurpose Pine Flat Reservoir on Kings River has been in process of construction for the last 2 years and by the height of this year's snow-melt runoff on Kings River, it will be capable of temporarily holding back about 300,000 acre-feet out of a total anticipated flood volume of more than 2,000,000 acre-feet. Emergency plans are now being prepared to make use of as much storage as can safely be utilized behind this partially completed dam in order to reduce flood damage along Kings River in the Tulare Lake-bed area as much as possible. Such emergency measures will be closely coordinated with the flood-control operation of the Bureau's Friant Reservoir so as not to aggravate flood conditions along San Joaquin River downstream from the outlet of Kings River water near Mendota.

You may be sure that our field representatives are fully alerted to the potential flood situation in the several threatened basins. A complete decentralized flood emergency plan has been developed with centers at key points throughout the potential flood areas, supported by a coordinating and information center at Sacramento. If a flood does materialize and local interests are unable to cope with the situation, the Corps of Engineers will be prepared to supplement the rescue and flood-fighting work of local agencies, joining in the effort to prevent loss of life and property damage.

Sincerely yours,

C. H. CHORPENING,
Brigadier General, USA, Assistant Chief of Engineers for Civil Works.

Senator KNOWLAND. I do feel that there is a very real danger of floods in California this year, which is one of the reasons these witnesses have come 3,000 miles to testify before the committee.

Mr. Chairman, the first witness, who will in turn introduce his associates here, is Mr. C. A. Griffith, chairman of the State water resources board.

Chairman MCKELLAR. All right, Mr. Griffith, have a chair and tell us what you want us to hear.

STATEMENT OF C. A. GRIFFITH, CHAIRMAN, STATE WATER RESOURCES BOARD OF CALIFORNIA

STATE-WIDE FLOOD CONTROL PROGRAM

Mr. GRIFFITH. Thank you, Mr. Chairman.

My name is C. A. Griffith, chairman of the State Water Resources Board of California.

I have with me Mr. Sam Leedom, the administrative assistant of the board, Mr. Northcutt Ely, our Washington representatives, and some other witnesses who will be called a little later.

I have already filed, Mr. Chairman, with the clerk of your committee, a number of copies of my formal statement which I would like permission to have made a part of the record.

Chairman MCKELLAR. Without objection, your statement will be made part of the record.

(The statement referred to follows:)

STATEMENT OF C. A. GRIFFITH TO SUBCOMMITTEE ON DEFICIENCY AND ARMY CIVIL FUNCTIONS

Chairman McKellar and members of the committee, I am C. A. Griffith, chairman of the State Water Resources Board of California. The board, of which I have the honor to be chairman, is the official agency of the State of California, created by the legislature and appointed by the Governor, for the purpose of

formulating and presenting to the Congress the State's position with regard to the Federal flood control construction program.

The delegation of Californians here with me today are the authorized representatives of the agencies assuming local responsibility on the various Federal flood control projects as required by the Federal Flood Control Act of 1944.

When we appeared before the Deficiencies and Army Civil Functions Subcommittee of the House Appropriations Committee some weeks ago, we were confident that our dire need for an accelerated flood control program would be recognized. I do not know whether this committee is aware of the critical nature of our growing population problem, but with your permission before I discuss our State-wide flood control program, I would like to cite some population growth estimates for California because they have a direct bearing on our flood control problems.

In 1920, when State studies were started that led up to the authorization of the Central Valley project, California had a population of only 3,426,000 people. By 1940, when the flood-control program for the State was being formulated by the United States Corps of Army Engineers, the population had doubled to 6,900,000. Ten years later, in 1950, it had jumped to 10,527,000. And now comes a recent estimate made by the United States Bureau of Census that our 1960 population will be 14,000,000 people. In other words, before we have completed the present program of flood-control projects developed by the Corps of Engineers in 1940 and authorized by Congress in 1944, our population will have more than doubled.

I don't know whether the growing pains of California can be brought home to anyone who does not live and pay taxes there, but gentlemen, when you have to build cities, schools, roads, institutions, water-conservation and flood-control works, and all other necessities for a population of 7,100,000 people in a 20-year period you are confronted with a problem that has never faced another similar area in world history. In fact, in the field of water conservation and flood control alone our population growth is creating problems faster than we can solve them.

It was for this very reason that I think everyone in California conversant with the problem, was amazed with the action of the House Subcommittee on Civil Functions Appropriations in cutting the appropriations for projects in southern California so radically. Los Angeles County is rated as the fastest-growing county in the fastest-growing State in the Union. Here the mounting flood-control problems caused by the encroachment on natural flood channels and drainage areas is beyond measure, yet the items in the President's budget for the area were cut almost to the point of ineffectuality.

This year has been one of near-record precipitation for the entire State of California. Snowfall in the Sierra Nevada Mountains has exceeded all records in many places. We have already experienced damaging floods in southern California. Two storms, the second closely following the first during the period January 13 through 18 caused millions of dollars in damage, paralyzed traffic, forced some 6,000 people to evacuate their homes and resulted in at least 18 deaths in southern California.

The major portion of this damage was caused by local runoff in heavily built-up areas. These storms would have been even more destructive had it not been for the Los Angeles County drainage area flood-control works which have been constructed jointly by the Los Angeles County flood-control district, the State of California, and the Federal Government. The constructed works functioned as designed and no flooding or damage resulted therefrom.

We know from the May 1 snow-survey bulletin issued by the State division of water resources that we can expect a heavy snow-melt runoff during May, June, and July. It is estimated that some 20 to 25 million acre-feet of water will course down the streams of the Sierra Nevada Mountains into the Central Valley Basin during that period. From past experience we now know that certain areas will be heavily flooded. In the Tulare Lake Basin, for instance, approximately 100,000 acres of lands that were under cultivation last year will be under water and unfarmed this year. Along the lower reaches of the San Joaquin River and its tributaries we can expect floods, and the delta region at the confluence of the Sacramento and San Joaquin Rivers, comprising 367,000 acres of rich farming lands, will be endangered.

That in brief summarizes our State-wide situation as of now. We know the tremendous burden that is being placed upon the Nation's financial structure by the rearmament program. We are well aware of the problems facing this

committee in its efforts to keep domestic spending reduced to a minimum figure and still provide sufficient funds for projects which are vital to our national defense.

With this in mind, the State water resources board met with the members of the California Flood Control Conference in December of last year and again in January this year to work out a program for California flood-control projects which we could support in all good faith. We had before us the criteria by which projects would be screened at the national level. We knew what funds would be required to carry on those projects under construction at an economical pace. And we were also faced with the problem of a large number of authorized and meritorious projects on which construction has already been too long delayed.

We believe we have worked out a sound program. In fact, even though it was completed and adopted by the board prior to the release of the President's budget, we find that in the main it conforms very closely to his recommendations. This has not always been true, but this year we are very happy to know that our reasoning and that of the budget makers in Washington run parallel.

There appears to be only one major difference. So far as we can find, no funds were set aside for advance planning for any projects in California not actually under construction. The board feels that these funds are necessary. In previous years we have recommended construction funds for many of these projects. This year, in view of the Presidential order of no new starts, we have refrained from asking for construction funds. However, we do feel that these projects must be constructed as soon as the Presidential restriction is lifted, and for that reason advance-planning funds should be provided now so that construction of these new projects will not be delayed for lack of definite project plans. The California Flood Control Conference and the county supervisors' association, both State-wide organizations, have endorsed and are supporting our requests for appropriations.

The program adopted by the board is divided into two sections, construction funds and advance-planning funds. It totals $72,962,000 and is divided among the various projects as follows:

Sacramento engineering district

CONSTRUCTION FUNDS

Cherry Valley Dam	$2,815,000
Folsom Dam	18,130,000
Isabella Dam	6,237,000
Merced stream group	645,000
Pine Flat	12,000,000
Sacramento River, old project	3,500,000
Total, construction funds	43,327,000

ADVANCED PLANNING FUNDS

Black Butte Dam	100,000
Hogan Dam	25,000
New Melones Dam	25,000
San Joaquin River levees	100,000
Total advance planning funds	250,000
Total Sacramento engineering district	43,577,000

San Francisco engineering district

ADVANCE PLANNING FUNDS

Russian River project, total San Francisco engineering district	$80,000

Los Angeles engineering district

CONSTRUCTION FUNDS

Los Angeles County drainage area project:	
Upper Los Angeles River—Van Nuys Blvd. to Sepulveda FCB	900,000
Upper Los Angeles River—Sepulveda FCB to Reseda Blvd	2,800,000
Lower Los Angeles River—Ocean Avenue to Anaheim Blvd	6,250,000
Lower Los Angeles River—PERR to Compton Blvd	2,600,000
Rio Hondo—SPRR to Anaheim—Telegraph Road	2,900,000
Pacoima Wash—Arleta St. to Tujunga Wash	1,900,000
Lopez FCB—Right-of-way acquisition	95,000
Whittier Narrows Dam	8,500,000
San Antonio Dam	3,000,000
Total, construction funds	28,945,000

ADVANCE PLANNING FUNDS

San Antonio Channel	50,000
Carbon Canyon	20,000
San Jacinto, Bautista Creek and Riverside Levees	50,000
Mill, Warm, East Twin, Devil, and Lytle Creeks	100,000
Santa Clara and Santa Paula Rivers	114,000
Stewart Canyon Dam	26,000
Total, advance planning funds	360,000
Total Los Angeles engineering district	29,305,000
Total funds, all districts	72,962,000

We hope the members of this committee will give this program serious consideration. It is not a program developed for a single project, but State-wide in nature and one which, as I have said before, was formulated only after careful study of the needs of those projects actually under construction in California. We recognize that the President's budget as delivered to the Congress places heavy limitations upon the funds earmarked for flood-control purposes. It is our sincere hope that this committee will see fit, at least to restore to the civil functions bill the amounts reduced by House action on the measure.

RESTORATION OF HOUSE CUTS

Mr. GRIFFITHS. The Senator has just spoken of a heavy snow pack in the mountains of California. I will not repeat that except to add that as far as southern California is concerned we have had a very heavy rainfall which resulted in a great deal of damage to property because of the uncontrolled streams.

Now it is interesting to note, however, that on the projects in California that were completed or practically completed the results were good as the engineers anticipated.

But where practically nothing has been done, we have had serious damage.

I have talked to you before several times about some of the problems that we have in California, and they are real problems. You cannot

have an increasing population the way we have had without a great drain on the facilities, the money, and everything else, of a State.

For the sake of emphasis, I should like to read one paragraph of my statement that is on file:

> In 1920, when State studies were started that led up to the authorization of the Central Valley project, California had a population of only 3,426,000 people. By 1940, when the flood-control program for the State was being formulated by the United States Corps of Army Engineers, the population had doubled to 6,900,000. Then 10 years later in 1950 it had jumped to 10,527,000. And now comes a recent estimate made by the United States Bureau of Census that our 1960 population will be 14 million people.
>
> In other words, before we have completed the present program of flood-control projects developed by the Corps of Engineers in 1940 and authorized by Congress in 1944, our population will have more than doubled.

And the problems that we have are simply insurmountable. The chief problem is the proper control of the water. With a runoff such as we have had out there this year, it is absolutely necessary that our flood-control program be carried out and in fact accelerated as much as possible.

I just want to speak of one thing in regard to the result of the House committee action, and that is the fact that there were some drastic cuts made, which will be brought out a little later by Colonel Hedger, in the Los Angeles drainage district that are simply not understandable—way, way beyond the general percentage of flood-control cuts throughout the United States—and the projects cut are in some of the most densely populated areas in the State.

I certainly hope that this committee will diligently consider restoring funds for some of these projects that have suffered the tremendous cut from the present budget.

Now this year, as in the past, we have carefully screened the requests that came to our board by representatives of the various flood-control projects in the State. I would like to present to you the request for appropriations that we presented to the House side, with the feeling that the figures that we are asking for are the amounts necessary to properly carry on the program.

By the way, we have divided these requests into two categories: construction funds and advance-planning funds.

SACRAMENTO DISTRICT FLOOD-CONTROL PROJECTS

In the Sacramento engineering district, the Cherry Valley Dam, $2,815,000; the Folsom Dam, $18,130,000; the Isabella Dam, $6,237,000; Merced stream group, $645,000; Pine Flat Dam, $12 million; Sacramento River, old project, $3,500,000.

Now, it is also true that it is quite necessary and proper for the corps to have some advance-planning funds available for their use.

Chairman McKellar. The House cut out all advance planning funds?

Mr. Griffith. Yes.

We are suggesting in the Sacramento district four projects that should have advance planning money: Black Butte Dam, $100,000; Hogan Dam, $25,000; New Melones Dam, $25,000; San Joaquin River levees, $100,000.

RUSSIAN RIVER PROJECT

In the San Francisco engineering district there is only one project that is the Russian River project on which we are asking for advance planning money of $80,000.

LOS ANGELES FLOOD-CONTROL PROJECTS

In the Los Angeles engineering district, on seven projects that will be discussed a little later by Mr. Hedger, we are requesting a total of $17,445,000; for the Whittier Narrows Dam, set up as a separate item, $8,500,000; and for the San Antonio Dam, $3 million.

That San Antonio Dam figure of $3 million was cut out entirely by the House side. It is hard to understand that action because this is one of the important dams we have in southern California, and it is in the course of construction.

Senator ELLENDER. How much of it has been constructed?

Mr. GRIFFITH. It is in the course of construction—the San Antonio Dam.

Senator ELLENDER. Can you tell me how much of it has been constructed?

Mr. GRIFFITH. I understand the property has been secured, the reservoir property, and the contract has been let for the spillway and a portion of the construction of the dam. I would rather that Mr. Hedger answer that question, because he is more familiar with it. Would you like to have it answered now?

Senator ELLENDER. No; that is all right.

Mr. GRIFFITH. He will go into that a little later.

Senator ELLENDER. Are all the projects all over California to which you are now referring strictly for flood-control or irrigation and other purposes?

Mr. GRIFFITH. No; these are flood-control projects.

Senator ELLENDER. Purely flood control?

Mr. GRIFFITH. Purely flood control; but with some irrigation benefits.

Chairman MCKELLER. No power?

Mr. GRIFFITH. No power is connected with any of these projects except Folsom Dam and that is a matter where the power comes in under the Bureau of Reclamation, As far as the Army is concerned, they have the construction of the dam proper. The Bureau is constructing of the power features.

ADVANCE PLANNING FUNDS

Now, in the Los Angeles district we also have some requests for advance planning funds for the San Antonio channel. That is a channel below the San Antonia Dam I spoke of. The amount is $50,000.

For Carbon Canyon, $20,000; San Jacinto, Bautista Creek, and Riverside levees, $50,000; Mill, Warm, East Twin, Devil, and Lytle Creeks, $100,000; Santa Clara and Santa Paula Rivers, $114,000; and Stewart Canyon Dam, $26,000. These are authorized projects on which construction has not been started but the planning has not been carried on to a point where construction will be ready to start.

TOTAL REQUEST

That makes a total of funds of all districts in both categories of $72,962,000.

There is one other item I would like to speak of for the sake of the record, and that is survey money.

We realize clearly that money, as far as new starts are concerned, new construction is concerned, is a pretty difficult matter at the present time. There are too many obligations, too many calls on the United States Treasury. But, at the same time we do feel that the Corps of Engineers should have some survey money so as to be ready when the time comes that funds will be released for these important projects.

Now, in closing I want to say that we in California have been very, very careful not to suggest anything but what is not only State-wide, but of national interest, for the protection of life and property. We have no apology whatsoever to make for our requests. We think they are proper. We think, taxwise, California is doing its job.

As far as the expenditure of local money, State, municipal and country money, we have nothing to be ashamed of. In fact, we are very proud of it.

FLOOD CONTROL FUNDS EXPENDED BY CALIFORNIA

You might be interested in a figure which I think I have given you before, that the Los Angeles County flood control district has spent of its own tax money around $100,000,000. We have spent in the State of California $300,000,000 for flood-control projects, another $300,000,000 for kindred work, such as irrigation canals and all that sort of thing.

All that does not count the vast expenditure on the Colorado project in southern California, an obligation of around $450,000,000; the Hetch Hetchy project in San Francisco of around $180,000,000; and the East Bay municipal project, which, as I recall the figure I gave a year ago, is around $80,000,000 or $90,000,000.

Therefore, California really comes to you with a feeling of pride and satisfaction in the way we have tried to do our own job.

Now, Mr. Chairman, I should like to call on several additional witnesses.

PINE FLAT AND ISABELLA DAM PROJECTS

Chairman McKellar. Yes, sir. Before that is done, I have several letters from Members of Congress and other citizens of your State which I think should be put in the record. I ask unanimous consent that is be done.

(The letters referred to follow:)

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D. C., April 4, 1952.

Hon. KENNETH MCKELLAR,
Chairman, Senate Appropriations Committee,
Senate Office Building, Washington, D. C.

DEAR MR. MCKELLAR: I am writing you to call your attention to the great concern and fear of extensive flood damage in the Kings River service area that is presently prevailing in the Tenth Congressional District of California, due to the heavy snow pack of record proportion that is reported on the drainage area this year, and which only last year caused serious flood damage in the same area.

To offset a repetition of this possibility, it has been suggested to me by many residents in the area that advantage should be taken of the flood-control benefits that are presumably obtainable this year from partial operation of the Pine Flat Reservoir, should this be possible without impairing the security of the dam structure in its present state of construction. I have been reliably informed that the work under construction has progressed to approximately one-fifth of the ultimate capacity on completion of the project and that there is a possibility that some 200,000 acre-feet of water may be stored this year, which would be a major factor in offsetting possible flood damage from the expected runoff of the Kings River during the period from April to June.

I am advised that there is some question as to the authority of the Army engineers to use existing funds heretofore appropriated, and those contemplated under the present civil-functions appropriations, for the operation of Pine Flat at this time and prior to its completion. I do not believe such expenditure would be contrary to law. However, I believe it is advisable that the Senate committee make some expression in this regard to the Army engineers when the subject is considered in the Senate committee. I have discussed possible storage during the present emergency with the Army engineers and they believe that they may be of some assistance this year. It is not my intention to influence the decisions of the Army engineers as to when flood-control storage should commence or when, in the interest of flood control, water should be released. It is my intention that they be advised they will not jeopardize their position before the Congress if they spend a small amount of money for operation expenses at this time.

In view of the imminent danger of floods in that area, it is of the utmost urgency and importance that the necessary legislative authority be granted to the Army engineers which will enable them to proceed with this project as hereinabove requested.

Sincerely yours,

THOMAS H. WERDEL, M. C.

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D. C., April 29, 1952.

Hon. KENNETH MCKELLAR,
Chairman, Committee on Appropriations,
United States Senate, Washington, D. C.

DEAR MR. CHAIRMAN: I address this letter to you as the Congressman from the Tenth Congressional District of the State of California. I know that you are advised of the present flood conditions in that State. I want to confirm my previous warnings to Members of the House committee and to the Senate committee of the very serious threat of flood presently existing in the Great Central Valley.

The crest of the Sierra Nevada Mountains is approximately 100 miles east of the Pacific Ocean. The prevailing cyclonic winds from off the Pacific and Aleutian Islands are forced to rise to the altitude of over 14,000 feet in the course of traveling that 100 miles. Mount Whitney is in that group. The chain of mountains is itself perhaps 50 miles wide with hanging canyons of great altitude and steep slopes to the valley below. The mountains drop off very abruptly to the foothills and then to the San Joaquin Valley, the floor of which has an altitude of only about 300 feet in the delta area of the four streams with which I am particularly concerned. The flood-control problem is different each year.

Some years there is very little floodwater. However, on a recent occasion, a high-school teacher in Bakersfield took a group of boys by boat on the floodwaters of the four streams, a distance of 300 miles to San Francisco Bay.

Nearly all of the land constituting the area threatened with floods by these four streams is valuable agricultural land. In addition to agricultural values, there are oil investments of great value threatened with floods each year.

The San Joaquin Valley is bounded on the east by the Coast Range Mountains and on the west by the Sierra Nevadas. The heavy snow deposits are on the Sierra Nevadas and on their westerly slope. The four rivers I am concerned about in these remarks threaten flood to the southerly end of the San Joaquin Valley. The rivers are the Kings, Kaweah, Tule, and Kern. The projects are known as Pine Flat Reservoir, Isabella Reservoir, Success Dam, and Terminus Dam.

The House committee has seriously cut the amount of the appropriation recommended by the Bureau of the Budget for the early completion of Pine Flat

Reservoir and Isabella Reservoir. I realize that the committee contemplates the completion of those projects at the earliest possible date. However, it should be pointed out that the Bureau of the Budget recommended expenditures based upon the requests of the Army engineers for that amount of money that they could spend during the next fiscal year toward the completion of those projects. It should also be pointed out that the Isabella Dam is a dirt-filled dam, which must be completed rapidly when the main dam is once commenced. Any other approach to the subject would cause serious threat of loss. The Army engineers should have the full amount of their request for those two projects during the coming fiscal year. They will thus be able to complete the projects at the lowest possible cost and they will be able to meet their obligation and the obligation of this Congress to pay the citizens whose property will be flooded, the value of that property in condemnation proceedings. I, therefore, earnestly request that the expenditures to be made on the Pine Flat Reservoir and Isabella Reservoir, as recommended by the Army engineers and the Bureau of the Budget, be reinstated by your committee.

It is also of the utmost importance that your committee consider original construction appropriations for the Success and Terminus Dams. In years past, I have regularly appeared before your committee to remind you that inasmuch as the four rivers I have mentioned have a common flood area in their delta regions, the four streams are considered as one project. While appropriations have heretofore been made to permit the studies on Success and Terminus, original construction appropriations have not been made. Dams on those streams will have to be completed before the projects on the Kern and Kings Rivers can be considered complete.

At the present time the four streams in question have snow packs equal to the highest recorded in history. They also have a water content of from 30 to 40 percent. There is a very serious threat at the present time to the cities in the area during the runoff this year.

I know that your committee realizes the confidence placed by local citizens in the good faith of our Government when it authorizes such projects. People of very limited financial means have moved into the delta areas of these streams. They have placed confidence in the announcement made many years ago that the floods would be controlled.

At the present rate of appropriation it will take over 15 years to finish the projects heretofore authorized and whose construction has heretofore been commenced. So long as we can afford to send $10 billion a year to Europe and build 1-mile-long railroad depots in Rome, 15 years to complete those projects is entirely too long.

I therefore respectfully request that your committee consider appropriating the full amount of the recommendation of the Bureau of the Budget for the Pine Flat and Isabella projects, and that at least $500,000 be allowed for the next fiscal year to commence construction on Success and Terminus.

Very sincerely yours,

THOMAS H. WERDEL, M. C.

HARBOR DEPARTMENT,
CITY OF SAN DIEGO,
San Diego, Calif., April 24, 1952.

Hon. KENNETH MCKELLAR,
United States Senator,
Washington, D. C.

DEAR SIR: The Harbor Commission, City of San Diego, has just been informed that the Army civil-function appropriation bill allocates only 1 percent to harbor and waterway works, with the remainder to be used for flood-control purposes. The differential between these two phases of the Army's civil-functions activities are so tremendous that your attention toward a thorough investigation of this matter is requested.

With the importance of the United States harbor and waterways toward the commerce and defense of this country uppermost in the minds of all citizens, serious consideration should be given a reapportionment of these funds to reflect more accurately the expenditure of moneys on the basis of importance and national well-being.

Your cooperation toward this end will be sincerely appreciated.

Very truly yours,

JOHN BATE, *Port Director.*

FLOOD-CONTROL LEVEES

OFFICE OF THE BOARD OF PUBLIC WORKS,
City of Los Angeles, Calif., March 28, 1952.

Hon. RICHARD NIXON,
United States Senate,
Washington, D. C.

DEAR SIR: The members of the board of public works have noted in the press that the Appropriations Committee of the House of Representatives has recommended a reduction to $2,898,000 of the $7,000,000 appropriation requested for flood-control projects in Los Angeles County.

Since the present inadequate drainage in Los Angeles County is a hazard to the lives of the citizens and causes great property loss, it is respectfully urged that you do everything possible to effect an appropriation of $7,000,000 in the United States Army civil-functions program for the fiscal year 1953 to assist in the elimination of the said hazard and the prevention of the said property damage.

Respectfully yours,

C. DON FIELD,
President.
HAROLD W. NASH,
Vice President.
L. M. DREVES,
E. L. TAYLOR,
C. W. CORYELL,
Commissioners.

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT,
Los Angeles, Calif., April 2, 1952.

Subject: Federal Flood-Control, Fiscal Year 1953 Appropriations.

Hon. RICHARD M. NIXON,
Senator, California, Senate Office Building,
Washington, D. C.

DEAR SENATOR NIXON: Enclosed herewith for your information is a copy of telegram forwarded each Member of the House of Representatives from Los Angeles County urging that every effort be made to restore cuts made by the House Appropriations Committee in the fiscal year 1953 flood-control appropriations for Los Angeles projects.

Unless these restorations are made by the House, they will, of course, be of great concern to this district during the time of the Senate hearings on flood-control appropriations, at which time we will request your full support of such restorations.

The success of the splendid assistance you have rendered the district in the past on similar matters relieves somewhat the alarm we have felt over this action of the House Appropriations Committee.

Yours very truly,

HAROLD E. HEDGER,
Chief Engineer.

Enclosure.

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT,
Los Angeles, Calif., March 28, 1952.

Word received here that H. R. 7268 proposes cut in flood-control appropriations for Los Angeles County drainage area project from budget item of $7,000,000 to $2,898,000; Whittier Narrows project from $7,000,000 to $5,500,000; and complete elimination of $3,000,000 budget item for San Antonio project. The board of supervisors requests that each Congressman from Los Angeles County make every possible effort to obtain restoration of these cuts during consideration of this bill by the House of Representatives. Proposed cuts would prevent construction of the Pacoima Wash diversion channel (a continuation of the upper Los Angeles River system) that recent floods have proven vital to protection of Van Nuys; improvement of the lower Los Angeles River which jeopardizes Long Beach Harbor and adjacent Navy and other defense facilities; and continued construction of the San Antonio project, which has been certified by the President as

necessary to the national defense, and is also essential to protection of Claremont, Pomona, and several cities in San Bernardino County. Three moderate floods experienced this spring have caused much damage and exposed these areas to grave hazard until protective measures are completed. Local residents are depending on appropriation of these budget items. The county flood-control district has budgeted funds for its share of these projects, totaling over $4,500,000. The seriousness of the proposed budget cuts is so great to Los Angeles County as to require the personal attention of each Congressman.

ROGER W. JESSUP,
Chairman, Board of Supervisors, Los Angeles County and Los Angeles County Flood Control District.

RECLAMATION DISTRICT NO. 744,
Sacramento, Calif., April 8, 1952.

Hon. RICHARD NIXON,
United States Senate, Washington, D. C.

MY DEAR SENATOR NIXON: We wish to call your attention to the hazardous condition of the levees along the banks of the Sacramento River.

In reclamation district No. 744, situated on the east bank of the Sacramento River, on Highway No. 24, approximately 12 miles south of the city of Sacramento, wave wash and heavy traffic have crumbled the banks to such an extent, the levee is dangerous and unsafe. This is one of the main arteries of travel between Sacramento and San Francisco. It is our opinion this levee will not withstand the heavy storms of another winter, such as we have experienced this last year.

We have contacted the Army Corps of Engineers on several occasions in regard to the seriousness of this situation, but each time have been told there were no funds available for the work. We are confident you realize that should a break in the levee occur in this particular section, the loss and property damage would be tremendous, and would very likely flood the entire area from Sacramento to Stockton.

We feel that the appropriation requested by the Army Corps of Engineers for $1,000,000 is entirely inadequate, and would appreciate your earnest effort to have this amount increased to $3,500,000 as recommended by the California Central Valleys Flood Control Association.

Respectfully,

BOARD OF TRUSTEES OF RECLAMATION DISTRICT NO. 744,
By MRS. W. A. CREED, *Secretary.*

IMPENDING FLOOD CONDITIONS

Senator ELLENDER. Mr. Griffith, do you find that floods in California have been more destructive in recent years than in the past? Have they been more frequent?

Mr. GRIFFITH. We have had a period of about 7 years, Senator, that we have not had any heavy rainfall except a year ago last fall, early, when northern and central California had excessive rainfalls. That, however, did not continue through the year, but it came in such a way that the floods then were very destructive. It affected highways, railroads, farm land and all that sort of thing.

Now, this year we have had a good deal more than normal rainfalls. Our percentages will run all the way from 120 to 240 percent of normal—maybe 250 percent.

We have a snow pack that is practically a record pack. Now, the danger of a snow pack is in the latter part of May or the first of June and the problem now is to reduce the storage in the present reservoirs so as to be able to take care of that.

WATER-STORAGE RESERVOIR

The upper reservoirs, like Pine Flat and Isabella, are not ready to do the job. We have been going along at a retarded rate of construction, and these jobs should be finished as fast as possible.

The trouble is that each year as we go along we get more area down below in the stream beds, and in the valleys, that are susceptible of danger. You have the San Fernando Valley that received a tremendous damage this year.

Senator ELLENDER. Do you find that the structures that have been built in recent years, up and down the rivers, have contributed toward lessening these floods?

Mr. GRIFFITH. Yes. There has been sound planning—there is no question about that. Of course, you have different conditions in different parts of the State. You have channel improvements in one part and storage dams in another.

ACTION ON TOTAL BUDGET REQUEST

Chairman MCKELLAR. How much did you ask for and how much did the budget recommend?

Mr. GRIFFITH. The President's budget was somewhere around $52,000,000.

Chairman MCKELLAR. What did the House approve?

Mr. GRIFFITH. The House approved about $39,000,000 according to the House report.

Chairman MCKELLAR. The House voted $39,000,000 as against a budget recommendation of $52,000,000?

Mr. GRIFFITH. Yes.

Chairman MCKELLAR. I thought it was worse than that.

Mr. GRIFFITH. Some of it is. You take some of the larger projects further along, but when you get down into some of the projects, the cut was as much as 52 percent.

Mr. GRIFFITH. I would like to call Mr. H. E. Hedger, chief engineer of the Los Angeles County flood-control district.

Chairman MCKELLAR. All right, Mr. Hedger.

STATEMENT OF H. E. HEDGER, CHIEF ENGINEER, LOS ANGELES COUNTY FLOOD-CONTROL DISTRICT

LOS ANGELES FLOOD-CONTROL PROJECTS

Mr. HEDGER. Mr. Chairman and gentlemen of the committee, my name is H. E. Hedger, chief engineer of the Los Angeles County flood-control district.

I have been authorized to appear before you by the board of supervisors of our district.

I have a prepared statement which I would like to submit for the record.

Chairman MCKELLAR. Without objection, it may be done.

(The statement referred to follows:)

STATEMENT OF H. E. HEDGER, CHIEF ENGINEER, LOS ANGELES COUNTY FLOOD-CONTROL DISTRICT, CALIFORNIA

Mr. Chairman and gentlemen, my name is H. E. Hedger, and as chief engineer of the Los Angeles County flood-control district, I have been directed and authorized by the board of supervisors of that district to report the flood-control needs of Los Angeles County for the fiscal year 1953.

The history of weather in Los Angeles County is a series of alternate dry-and-wet periods, interspersed with disastrous floods. The county has experienced subnormal rainfall for the past 7 years, and the storms which did occur were not severe. During this period the flood-control engineers of the district, State, and the Corps of Engineers realized that the occurrence of floods was only deferred, and Congress was requested each year to make the maximum possible appropriations for construction of permanent flood-control works to cope with impending floods. However, Congress has each year had to reduce flood-control appropriations to a fraction of the amounts necessary due to the demands of other national and international programs. This reduction in appropriations has seriously delayed the construction of the flood-control projects necessary to protect the county from future floods. The 7-year dry period is now apparently ended. Floods are once more occurring and rainfall this year is about twice normal and four times that of last year. Since January 1, 1952, Los Angeles County has experienced 3 major storms which have caused the loss of 10 lives and many millions in property damage, and the season of heavy rainfall is not yet over.

Although these storms produced serious loss of life and property damage, their magnitude was considerably lower than those of the floods of other years such as 1943, 1938, 1934, 1916, and earlier years. They do indicate the potential cost in lives and property damage of another storm of the magnitude of the 1938 flood if it occurs before our major flood-control projects are completed.

The flood damage and loss of life caused by the January and March storms of this year emphasized the fact that the unprecedented increase in population and consequent industrial, commercial, and residential development has far exceeded the rate at which flood-protection work has been financed. The storm of 1938 which caused the loss of 49 lives and over $40 million in property damage in Los Angeles County, occurred when the population of the county was 2,450,000 as compared to the present population of 4,466,000. A large proportion of the additional 2,016,000 people has settled in areas subject to flood hazard because most of the higher and safer areas were previously developed.

So, gentlemen, I am representing an area just recovering from the effects of storms which caused severe damage, loss of lives, and the permanent or temporary loss of thousands of homes. The people living in this are are demanding that the district, State, and the Federal Government correct this situation without delay.

You have heard the recommendations of the chairman of the State water resources board as to the immediate need for appropriations for flood-control works in California. In Los Angeles County the projects are:

Los Angeles County drainage area project:	
Upper Los Angeles River:	
Van Nuys Blvd. to Sepulveda flood-control basin	$900,000
Sepulveda flood-control basin to Reseda Blvd	2,800,000
Lower Los Angeles River:	
Ocean Ave. to Anaheim Blvd	6,250,000
Pacific Electric Ry. to Compton Blvd	2,600,000
Rio Hondo, Southern Pacific RR to Anaheim-Telegraph Road	2,900,000
Pacoima Wash-Arleta St. to Tujunga Wash	1,900,000
Lopez flood-control basin, right-of-way acquisition	95,000
	17,445,000
Whittier Narrows Dam	8,500,000
San Antonio Dam	3,000,000
San Antonio Channel	50,000
Total	28,995,000

Immediate need of every one of these items has been demonstrated by the floods of this January.

The first unit recommended in the Los Angeles County drainage area project, completion of a concrete-lined channel for Upper Los Angeles River from Van Nuys Boulevard to Sepulveda flood-control basin, will close the only gap remaining in the Upper Los Angeles River downstream from Sepulveda regulating dam. The safe capacity of this unimproved section of channel partially nullifies the value of the $6,640,000 Sepulveda flood-control basin and recurrence of the 1938 storm would result in overflow of an area containing thousands of homes.

The second unit is the permanent improvement of the Upper Los Angeles River from the Sepulveda flood-control basin upstream to Reseda Boulevard. Runoff from the January storm taxed the capacity of the present channel, and lack of depth in the existing channel caused tributary channels to flood large areas to such depths that many residents were evacuated.

The third unit of the program is the permanent restoration of the channel of the lower Los Angeles River from the Pacific Ocean upstream to Anaheim Boulevard in the city of Long Beach. Almost 50 percent of the original channel capacity of 100,000 cubic feet per second has been lost due to subsidence of several square miles of area in this vicinity. The existing levees and bridges have settled several feet in relation to sea level and in the January storm a flow of 56,000 cubic feet per second filled the channel to within 18 inches of the top of the levees. An increase in the intensity or length of this storm would have caused the levees to be topped, with disastrous overflow affecting a substantial part of the Los Angeles Harbor and industrial area, and the United States naval installations at Terminal Island, vital to national defense.

The fourth and fifth units are the improvement of the lower Los Angeles River, Pacific Electric Railway to Compton Boulevard, and the Rio Hondo Channel, Southern Pacific Railroad to Anaheim-Telegraph Road, respectively. These are portions of the river channel development that are involved in the coordinated program which utilizes the Whittier Narrows flood-control basin, and have been under way for several years. The January floods were reduced by the operation of existing district and Corps of Engineers reservoirs on the upper Rio Hondo-San Gabriel River watershed, to the point that the San Gabriel River did not overflow its banks. These storms did, however, demonstrate the urgent need for the completion of the Rio Hondo and lower Los Angeles River which will permit full use of the completed Whittier Narrows flood-control basin. The capacity of the San Gabriel River which now carriers the entire flow of this watershed is so limited that any storm greater than that of January would endanger lives and property of thousands of residents in this area.

The condition of the last two units of the Los Angeles County drainage area project, Pacoima Wash from Arleta Street to Tujunga Wash and Lopez flood-control basin, was the cause of a great deal of damage during the January storm.

We have previously pointed out to your committee that the present Pacoima Wash channel through the business and residential sections of Van Nuys consists of city streets. Local merchants estimate their losses in storm damage and loss of business will run into millions as a result of the flow of floodwaters down Van Nuys Boulevard, the main thoroughfare of this area. This unit of the Tujunga Wash system should be improved immediately to prevent loss of lives and property.

Construction of the Whittier Narrows flood-control dam is progressing, and this year's storms have indicated the urgency of its early completion. If the appropriated funds are adequate, this project can be completed in 2 years.

Transportation necessary to the national defense program was again threatened by flood flows from San Antonio Wash. Fortunately, the storms of January and March 1952 did not interrupt traffic on the main railroad and highway lines as in the 1938 and other storms, but were indicative of the possible loss of these lines during a heavier storm.

This program was adopted by the State water resources board in December 1951. The storms of January and March 1952 have caused damage in many areas which will not be protected by the improvements discussed above, and the program, if it were being prepared today, would be enlarged by additional units of the Los Angeles County drainage area project and by additional appropriations. Improvements authorized for Eaton Wash, Arcadia Wash, Coyote Creek, Centinela Creek, Wilson Canyon, Benedict Canyon, Sierra Madre Villa Canyon,

Blanchard Canyon, and other channels will require early consideration by your committee.

We realize that the appropriatios for civil works must be weighed in comparison with appropriations for national defense and other national programs. However, the rate of construction of flood-control improvements in the Los Angeles County drainage area must be accelerated, and appropriations for that purpose thereby increased.

The Los Angeles County flood-control district is responsible financially for the operation of its share of the Los Angeles County drainage area system, and has expended almost as much for that purpose as has the Federal Government. Temporary relief for areas not yet protected by this system is also the responsibility of this district.

Los Angeles County must also finance other phases of the problem here, such as the immense network of storm drains necessary to bring storm waters into our flood-control channels. Our district is now contemplating a bond issue of $160,000,000 for this purpose, which is less than half the program that must be ultimately financed locally.

We firmly believe that there is no other area of comparable size in this entire country that has gone as far as Los Angeles County in financing its flood-control needs and that has been more willing to meet local obligations under approved Federal flood-control programs.

We will continue to carry this load and to meet the local obligations of acquiring right-of-way, reconstructing bridges and highways, etc., connected with the projects to be financed by the appropriations you recommend.

We sincerely hope, however, that this years' enormous appropriation requirements for national defense and other national programs will soon abate so normal attention can be given to other problems. However, the flood problem has grown to such proportions that it can no longer be deferred, and it has become a matter of great urgency that your committee recommend appropriations which will meet the full need for flood control in our county.

We also remind you that Los Angeles County, while small in area is proportion to the rest of the Nation, includes 2.75 percent of the Nation's population, and is one of the country's most important centers of national defense production. On his subject I repeat my statement of last year, "In national rank of production the Los Angeles industrial area in 1947 was first in the manufacture of aircraft and aircraft parts, pumps and compressors, refrigerator equipment and machinery, heating and plumbing equipment, canned seafood, and motion pictures; second in automobile assembly, automobile tire and tube production, storage batteries, oil field machinery, tool press and blown glass, and concrete and plastic products, and third in petroleum refinery, ceramic products, nonferrous foundries, tractors and farm machinery, construction and mining machinery, conveyor equipment, miscellaneous fabricated textiles and miscellaneous products. It ranked fourth in 16 additional industries. The total annual value added by manufacturing in this area was reported as over $2 billion for that year. Since 1947 the industrial growth of this area has skyrocketed and the production of vital defense equipment, such as aircraft, rubber tires, creamic and glass products for electronic and other use, storage batteries, tractors and farm machinery, etc., has greatly expanded."

Even in these times of great demand for appropriations for national defense there must also be appropriations for the construction of works to protect our national defense production from loss by interruption of production or destruction of plants by floods.

The program presented by the State and this district represents the bare minimum of flood control construction needed in Los Angeles County for this purpose.

Thank you.

RESTORATION REQUESTED

Mr. HEDGER. Since the projects that I will discuss are widely scattered in Los Angeles County, I have some small maps which I would like to pass to the members of the committee. They may help you in following the testimony.

I can state my mission much more briefly than the written statement, I am sure. It is simply this: that we request that your committee recommend to the Senate the appropriation of the entire flood-

control budget submitted by the President, in so far as Los Angeles County is concerned. That means restoration of over half of the President's recommendations which were eliminated by House action.

The House reduced the Budget recommendations for three projects in our county by over 50 percent, which is almost double the national average. It is most difficult for us to understand what the reasons could have been for such a drastic reduction.

First, the population of Los Angeles County has now reached approximately 4,500,000 people. There are more people living in the area shown on this map than in some 39 of the States.

The population of the area subject to flood hazard includes over half of that 4,500,000 people. The assessed valuation of the property in the flood area is over $2,000,000,000.

The type of flood hazard that our people face is not the gradual rise of a flood channel, such as recently was experienced along the larger rivers of the country, the Missouri and the Mississippi; it is the sudden devastating type of flood hazard that strikes without warning and kills many people. It is terribly destructive. In 1938 there were over 40 people who were killed in a few hours' time.

Chairman McKellar. Did that flood come from melting snow or from rain, Mr. Hedger?

Mr. Hedger. No, sir; it comes generally from rainfall. We are situated on the Pacific coast and we get the moisture-laden air masses coming down from Alaska.

FLASH FLOODS

Senator Ellender. They are flash floods from the mountainside?

Mr. Hedger. Yes, sir. We have mountains as high as 10,000 feet in elevation within 40 miles of the ocean, that produces flash floods that are simply devastating.

Chairman McKellar. The last flood was in 1938?

Mr. Hedger. The last major flood. We did have some severe runoffs this spring for the first time in 8 years. We have had 7 years of drought since 1943, but this year we had more than normal runoff. Fortunately, the flood control works that have been completed worked perfectly, and no damage was sustained at all where the completed works were available. But considerable difficulty was experienced where works had not been completed.

Senator Ellender. Was there much loss?

Mr. Hedger. Several million dollars and several lives, but not a catastrophe such as was experienced in 1938.

Another thing that suffers flood damages in Los Angeles County that makes it difficult to understand why these reductions were so great is that it is a center of a large share of the defense activity of the country. Los Angeles County ranks first in aircraft production, in agriculture, and five other industries, and second and third in many more. It is a very important center of defense activity in the country.

So that we cannot help but feel that the House action was at least ill-advised and probably based on a lack of concept of the seriousness of the situation in Los Angeles County.

Chairman McKellar. You wish to have the budget estimate restored?

Mr. HEDGER. We would like to see the President's budget recommendations restored, yes sir.

WHITTIER NARROWS DAM

There are three projects in Los Angeles County that should be considered; the Whittier Narrows flood control basin is one. That was cut from $7,000,000 to $5,500,000. That is a most important project and should go forward as quickly as possible. It can be completed in 2 years with the proper appropriations.

SAN ANTONIO DAM

The next is the San Antonio Dam, a project located on the boundary between Los Angeles and San Bernardino Counties. It is one of the few projects in the county certified as necessary to national defense by the President a few years ago and construction has been started with last year's appropriations. The House cut means that construction would stop automatically for at least a year.

The President's budget included $3,000,000 for that project and we recommend that that amount be restored.

LOS ANGELES COUNTY DRAINAGE PROJECT

The last of the three projects is that known as the Los Angeles County drainage project. It covers nearly all of the things shown on the map before you. It includes every flood control item shown on that map except the San Antonio Dam, which is on the eastern boundary of the county, and Whittier Narrows. Everything else shown is known as the Los Angeles County drainage area project.

That project was authorized by Congress in 1936 as a single project and was reauthorized as such in 1941 and in 1944. The estimated cost is about $312,000,000 and to date over $120,000,000 has been appropriated by Congress for its construction. It has been under construction for 16 years and is at present about a third completed. Yet the House action would reduce the President's recommendation for this project from $7,000,000 to $2,898,000 this year.

At the rate that the President's recommendations would permit, it would require about 31 years to complete that project, but at the rate that the House recommendations would permit, it would take over 75 years to complete the project, and yet it is the one that is essential to all these four and a half million people about whom I have been talking.

PACOIMA DIVERSION CHANNEL

There are two units of that project that were eliminated entirely by the House action. One is known as the Pacoima diversion channel, a most essential project, in San Fernando Valley.

Senator KNOWLAND. I might say, Mr. Hedger, that I have just passed to the committee some pictures that they gave me when I was out in the San Fernando Valley, of flood conditions that recently grew out of floods they had there due to the fact that this channel had not been completed.

Mr. HEDGER. Yes, sir. The damage that was sustained there was due to the fact that nothing had been initiated toward construction of

the project they depend upon for their protection. The Pacoima diversion channel is a good illustration of the fact that the Los Angeles County drainage area project is an integrated, closely knitted single project. You cannot pick out units and say "We will not start this unit because it is a separate project. The whole thing is too closely integrated. The Pacoima diversion channel, for instance, could not be constructed until some of the units on the major Los Angeles River Channel were completed, because it would otherwise have diverted more flood water into them than they could handle.

Although the need for it is has been critical for years, yet no work could be started until now.

If the application of the no-new-starts theory is adopted with respect to it, it would never be finished in time to protect these people before catastrophe is apt to strike.

LOWER LOS ANGELES RIVER

The other item of the Los Angeles County drainage project that was eliminated is the lower Los Angeles River from Ocean to Seventh Street.

That is in the city of Long Beach, at the entrance of the main Los Angeles River channel, to the Pacific Channel, and affects the combined harbors of Los Angeles and Long Beach. It is most essential to all of the naval installations, the harbor industry, the shipping of the whole Los Angeles Harbor area, for the reason that any overflow of that channel, which very nearly occurred last January, could be completely destructive to all these industries, and the shipping.

Chairman McKellar. Did I understand you to say a while ago that the airplane industry was the largest in the country?

Mr. Hedger. I said Los Angeles County was first in airplane production in the whole country.

Chairman McKellar. In the whole country?

Mr. Hedger. Yes; in comparison with all other counties in the country. It is first in agriculture, too, first in aircraft production, first in agriculture, and in five other industries, in comparison with other counties in the country.

Senator Knowland. I would like to ask Mr. Hedger to reiterate, that not only the aircraft industry in Los Angeles County, but from the over-all defense picture, Los Angeles County, of course, is an important segment in our over-all defense picture, with many subcontractors and contractors, and you may want to dwell on the subject of the problem of transportation, rail and highway, that would be impaired with the major flash floods that might come.

Mr. Hedger. That was definitely recognized when the President had an investigation made as to the necessity for construction of the San Antonio Dam.

There is was found that a flash flood on that watershed could wipe out all transcontinental transportation for days and even weeks. That did happen in 1938 on the channel to the east. There was no freight movement on the Nation's transcontinental railroads for days on end, right at the peak of the war effort.

So it is most critical from that standpoint.

Chairman McKellar. Have plans been made for all these projects in Los Angeles County?

Mr. HEDGER. Yes, sir; definite project plans for each of the projects mentioned are completed.

I just want to enlarge briefly on the point made by Mr. Griffith, that the local interests have done all they could to carry their share of this burden. You may be interested in these figures.

FEDERAL-LOCAL FUNDS EXPENDED

The Federal Government has appropriated about $125,000,000 for the projects we have been talking about.

The Los Angeles County flood-control district, from revenues received by taxation locally, has contributed about $100,000,000 to the same effort.

Since 1941 the Federal Government has appropriated $27,000,000 and the county flood-control district, $17,800,000 on the joint projects. That is, the local obligation on projects that the Federal Government has spent $27,000,000 on, has amounted to $17,800,000.

In other words, we have been matching at least 65 cents for every dollar that Congress has expended on joint projects since 1941 in the last 10 years. I doubt if there is any other part of the country that has produced the amount of local obligation that has been the case there.

The same continues for each year's budget. Our budget appropriation toward the whole flood-control effort in our county runs about 65 cents to $1 for the Government appropriation.

That covers, as briefly as I can present it, the essential features of our case; the need for these improvements is unquestionably there, and is there, now.

The threat to the lives of the people who depend on these works increases because of the point that Senator Ellender brought out, that the country is growing, there is no place for the incoming people to live, except in the flood-hazard areas, so that the hazard to the number of people involved increases year by year.

RESTORATIONS REQUESTED

Finally, we wish to urge that your committee recommend the restoration of those three items to the amounts included in the President's budget, which are: The Los Angeles County drainage area project, $7,000,000; Whittier Narrows flood-control basin, $7,000,000; and the San Antonio Dam, $3,000,000.

I thank you very much, sir.

Mr. GRIFFITH. I would like to call Mr. A. R. Galloway, Jr., president of the State reclamation board. He will speak on the Sacramento River flood-control project.

STATEMENT OF A. R. GALLOWAY, JR., PRESIDENT, THE RECLAMATION BOARD OF CALIFORNIA, SACRAMENTO, CALIF.

SACRAMENTO RIVER FLOOD CONTROL PROJECT

Mr. GALLOWAY. First, Mr. Chairman, and members of the committee, my name is A. R. Galloway, Jr., of Sacramento, Calif., and I have been president of the California State Reclamation Board some 16

years. I, too, would like to be permitted to present a formal memorandum for the record, copies of which have been presented to the clerk.

Chairman McKellar. Without objection, it is so ordered.

(The statement referred to follows:)

STATEMENT OF A. R. GALLAWAY, JR., PRESIDENT OF THE RECLAMATION BOARD OF CALIFORNIA

Mr. Chairman and members of the committee, my name is A. R. Gallaway, Jr., of Sacramento, Calif. On behalf of the Reclamation Board of the State of California, of which I have been president for 16 years, I am presenting this statement in recommendation of Federal appropriations for the 1953 fiscal year for the support of flood-control projects in the State of California. With your permission, I would like to have it inserted in the printed record. My board has authorized me to support all the recommendations which have been presented to you at this hearing by Mr. C. A. Griffith, chairman of the State water resources board, and specifically those items which affect the Sacramento engineering district.

The Sacramento River flood-control project had its origin in plans and measures of debris control, authorized by act of Congress of March 1, 1893. The California Debris Comission was created in this act, and from time to time its reports on plans and projects for navigation, debris control, and flood control were adopted by acts of Congress and by companion complementary legislation of the State of California. A specific project for flood control on the Sacramento River was authorized by Congress in the Flood Control Act of 1917, which approved the plans of the California Debris Commission of August 10, 1910, printed in House Document No. 81, Sixty-second Congress, first session. It can be seen, therefore, that the Sacramento River flood-control project is 42 years old and it is not yet completed. This is certainly the pace of the turtle and a most serious economic waste to both the Federal Government and to the State of California.

In 1951, Congress appropriated only $1,000,000 for this 42-year old project. The same amount has been recommended for the fiscal year 1953 by the civil functions subcommittee of the House of Representatives. At this snail's pace, another 20 years will have been written into history before the project is completed, for according to today's current cost estimate to the Federal Government to complete the project an additional $19,500,000 will have to be appropriated. This is a figure upon which the Corps of Engineers, United States Army, and the State of California are agreed. The estimate of cost to the State of California to complete the project is $15,000,000.

Out of the $1,000,000 appropriated by Congress for the project in 1951, approximately $600,000 was of necessity diverted by the Corps of Engineers for bank protection work and the cost of maintenance. A similar sum would be subtracted from the $1,000,000 recommended for fiscal year 1953. This leaves a very negligible balance for prosecuting construction yet undone in order to complete the project. This annual maintenance and bank protection obligation of the Federal Government will continue until the various units of the project are completed by the Corps of Engineers to standard specifications and turned over to the State for maintenance.

This factor was recognized by Mr. Brennan, representative of the office of the Chief of Engineers in testimony before the Army civil functions subcommittee of the Committee on Appropriations of the House of Representatives, Eighty-second Congress (see pp. 515–518, inclusive, pt. 1, of said hearings). The subcommittee was critical of this factor and at one point Mr. Louis Rabaut, member of the subcommittee, stated that he did not see any reason why the Corps of Engineers did not ask for more money if it (the corps) had the interests of the Federal Government at heart, and since it was testified that the Bureau of the Budget knew the maintenance would be $600,000 per year, he did not think it was proper to request only $1 million per year. Mr. Brennan further testified that from June 30, 1950, to June 30, 1951, prices increased in the neighborhood of 6 percent which added $1,035,000 to the estimated Federal cost to complete the project.

Included in the bank protection work and maintenance referred to above, for which approximately $600,000 from the $1,000,000 appropriated for the project is being diverted, is the cost of repairing levee slips along the Sacramento River

caused by the sudden closing of the outlet gates in Shasta Dam by the Federal Bureau of Reclamation in May 1948. The sudden lowering of the water surface in the river released the supporting hydraulic pressure against the river banks, causing the collapse and slippage at many locations of saturated river banks supporting downstream levees. This damage extended along a river frontage of approximately 50 miles. Expenditures for these repairs as of January 31, 1952, are as follows:

	Expended or obligated	Total estimated cost	Cost to complete
United States	[1] $3,350,000	$4,400,000	$750,000
State of California	519,200	700,000	180,800
Total	3,869,200	5,100,000	930,800

[1] Of the $3,350,000 expended by the Federal Government to Jan. 31, 1952, $1,000,000 were emergency funds and the remaining $2,350,000 were diverted from funds otherwise appropriated for the completion of the Sacramento River flood-control project.

Representatives of the California State Water Resources Board and the California State Reclamation Board recommended, in an appearance on Feb. 28, 1952, before the Civil Functions Subcommittee of the House Appropriations Committee, that the sum of $3,500,000 be made available for the Sacramento River flood-control project for the ensuing fiscal year. Mr. Brennan, the representative of the Chief of Engineers, United States Army, testified before the same subcommittee that as much as $5 or $6 million per year could be advantageously used by the Army engineers toward completion of the project.

Costs to the State of California for the purchase of lands, easements, rights-of-way and reconstruction of utilities, bridges, and highways show a marked annual increase. The United States Department of Agriculture has indicated that lands within the Sacramento Valley show an increase in value from 1940 at 100 percent to 1952 of 240 percent. According to Mr. T. G. Mapel, AAI appraiser of Sacramento, the charts of the United States Bureau of Reclamation (Lands and Rights-of-Way Division) indicate an increase in selling price in various areas for California farms from 1940 at 96 percent to 1950 at 275 percent.

It would appear to be of the utmost urgency, from an economic standpoint to both the Federal and California State Governments that adequate funds be provided for an early, efficient, and speedy completion of the Sacramento River flood-control project, which has now already been under construction for 42 years.

The recent devastating flood in the Mississippi Valley and inundations that have occurred in the Sacramento and San Joaquin Valleys of California in the past are compelling arguments that adequate appropriations should be authorized by this committee in order to bring this project to completion.

PROJECT AREA DESCRIBED

Mr. GALLOWAY. This is my first experiences in appearing before a committee of this kind.

When I received notice that I might have a few moments to address the committee, I thoughtlessly welcomed that opportunity, thinking first that I might have the opportunity to say something of the Sacramento River, the fact that it is the fourth largest in the United States in flood volume.

I had in mind the possibility of saying something about the 1,300,000 acres of land affected by that project.

I had in mind saying something about the 11,000 miles of levees that are a part of the project; something about the 250,000 acres of flowage easements that have been acquired in conjunction with five weirs, as spillways, to give relief from flood hazards.

I had in mind saying something about the 15,000 acres of land to be cleared of brush and timber, to permit the freer flow of water.

I also thought of saying something of the $38,000,000 that has been contributed by local interests toward this project.

COMPLETION OF PROJECT

This is a project that, according to estimates made in November of last year, is 78.4 percent complete.

Chairman MCKELLAR. How much more money would it take, and how long would it take to complete them?

Mr. GALLOWAY. I will touch on both of these in a moment, Mr. Chairman, if I may.

The question is so appropriate, and these recurrent applications for funds bring out this question: When this project is going to be completed, if ever, and how much will be the cost? That is a very appropriate question.

Starting some 6 months ago, the State engineer of California, the engineers of the reclamation board, and the engineers of the Army Corps undertook a careful survey to determine what was incomplete in the project.

The intention was to put it in writing and may I say, during that 6 months' time countless meetings were held between the State engineer and the board and the Army Corps of Engineers in analyzing the enabling acts, if I may call it that, of both the Federal Government and the State.

Of course, this project was started in 1917. I have with me a letter which attempts to embody a substantial agreement reached between the State and the Army Corps of Engineers, as to the cost, both to the Federal Government and the State. They are in substantial agreement. The contemplated cost to the Federal Government being $19,500,000 to complete the project and the cost by the State of California of its share under the enabling acts of $15,000,000.

Now, I rather take it that the reduction of the annual appropriation 3 years ago from an average, as I remember it, of about $3,500,000 a year was occasioned by the question of: Where are we going and what is there to complete? And how much is it going to cost?

MAINTENANCE COSTS

The reduction to a million dollars which we got for this calendar year, and which has been set out in the subcommittee of the House again for 1953 leaves a pitiful small amount to be used toward the completion of the project because during this year and possibly next it will take in the neighborhood of $600,000 for maintenance alone, which is a part of the Federal cost, and unfortunately it leaves a number of projects that are only partially complete or nearly complete, with inadequate funds to complete them.

Of course, we take over the cells or units as they are completed—the State does—for maintenance, but there are many that are incompleted, where the burden of maintenance is on the Federal Government.

Again I repeat, a part of the $1,000,000 allocation, approximately $600,000 goes for maintenance, and only about $400,000 is available for completing the project.

Now there are a couple of items on which we have been unable to reach complete agreement in the interpretation of the act; sometimes it is verbiage and that is being ironed out very rapidly.

There is one item that probably neither of us is able to answer without some enabling legislation.

DAMAGE TO LEVEES BY OPERATION OF SHASTA DAM

First, may I say that within the last 3 years in the operation of Shasta Dam, great damage was done to about approximately 50 miles of levee, damage done while the work was under way but before it was completed and accepted by the State.

Great damage was done and substantial funds used for replacement.

Now the State is a bit disturbed about damage that might come in the future from the operation of multiple dam units like Shasta Dam where great damage was done to a project that is only a comparatively small part helpful to flood control.

Senator ELLENDER. By what is that damage occasioned?

Mr. GALLOWAY. Letting too much water out. At the time of the peak flow and when the river was bank full, the flow was reduced, at Shasta Dam, so that there was a fall in the river, of 9 or 10 feet in a few hours, and the levee melted just like sugar, into the river.

Senator ELLENDER. Are we to assume that the water sustained it?

Mr. GALLOWAY. Well, an engineer can answer you, Senator, better than I can. I know actually what happened, that the quick dropping of the water in no time at all occasioned the levees to slough off into the river. It was a dreadful thing. I think that experience will probably prevent its recurrence, certainly in the operation of that dam. We are having other dams built, and we hope it does not happen again.

Now, I have a number of other things that I was going to touch on, but I do want to say to you, Senator, in answer to your question, that we have undertaken to make a very careful survey of the work in front of us, a very careful survey under which we are in substantial agreement. When you come to the length of time—which was a part of your question—if my arithmetic is right, and on a continued appropriation of $1,000,000 a year, it would take about 49 years. That, gentlemen, does not make sense. It does not make sense from the standpoint of economy, because we need further protection to make secure that which, in the major part, is done, and the Federal Government should get rid of the obligation of maintenance.

Now, as a citizen, too, I am dreadfully sympathetic with budget and economy, but my definition of economy is one where, for both ourselves and the Federal Government, it seems to me that accelerated completion of this project would be beneficial.

I just dare hope that the $1,000,000 that has been suggested can be increased so that some of these hazardous spots can be cared for.

Thank you, sir.

Chairman MCKELLAR. All right, sir; we are very much obliged.

Mr. GRIFFITH. I would like to call on Charles Deterding, who is the Sacramento County executive. He will speak on the Folsom Dam.

Chairman MCKELLAR. We shall be glad to hear from Mr. Deterding.

STATEMENT OF CHARLES W. DETERDING, COUNTY EXECUTIVE, SACRAMENTO, CALIF.

FOLSOM DAM PROJECT

Mr. DETERDING. Mr. Chairman and gentlemen of the committee, my name is Charles W. Deterding. I am the county executive of Sacramento County.

I have been instructed by the board of supervisors to appear before your committee and urge approval of the appropriation as set out in the executive budget, to continue construction of the Folsom Dam project, in the next fiscal year. In addition, I have been authorized to represent the Sacramento Chamber of Commerce and the city of Sacramento.

At this time I have a formal statement that I would like to submit for the record; likewise the resolutions from the Sacramento Chamber of Commerce; the resolution of authority from the city of Sacramento, and the resolution from the Sacramento County Board of Supervisors.

Chairman McKellar. Without objection, they will be placed in the record at this point.

(The documents referred to follow:)

FOLSOM DAM PROJECT

RESOLUTION

Whereas the Congress of the United States has approved and provided the initial finances for the development of one of the most vitally important projects for reclamation in the State of California through its approval of funds for the construction of Folsom Dam on the American River, 22 miles from the city of Sacramento; and

Whereas approximately 300,000 acres of fertile lands not now in profitable production could be developed to produce important crops and greatly increase the food supply of the country provided water is available for irrigation; and

Whereas lands now under cultivation being irrigated by water from underground sources through utilization of electrical energy for pumping are on the verge of reverting to their former nonproductive state due to recession of the water level, creating increased and virtually prohibitive pumping costs, with a further threat of cutting off power on account of constantly increasing demands throughout the entire area for electrical energy; and

Whereas flood conditions in the past years have caused damages to our important highways, military installations, and to the property of residents of this area in the sum of millions of dollars; and

Whereas the snow pack has been very heavy this year in the Sierra-Nevada and the danger of floods is consequently greater; and

Whereas the United States Corps of Engineers have, through their initial surveys and the construction work during the past 2 years, developed the project where the dam itself can now be built and completed as rapidly as Federal funds are made available in order that the multiple-purpose features of the project may be made effective: Be it

Resolved, That the board of directors of the Sacramento Chamber of Commerce authorize Mr. Charles Deterding, Jr., county executive of Sacramento County, to represent this organization at the various hearings before Senate Subcommittees on Civil Functions to present facts supporting the need for an appropriation of $18,130,000 as recommended by the President of the United States to be used for the early completion of the Folsom Dam project on the American River.

This is to certify that the foregoing is a true and correct copy of the resolution adopted at the regular meeting of the board of directors of the Sacramento Chamber of Commerce held Monday, May 5, 1952.

[SEAL]

PAUL M. CLARK,
Secretary to the Board.

SACRAMENTO COUNTY

OFFICE OF BOARD OF SUPERVISORS RESOLUTION NO. 10,823

Whereas floods from the American River have always been a threat to the county of Sacramento; and

Whereas the watershed of the American River is now covered by an unusually heavy snow pack; and

Whereas the Folsom Dam is approximately one-fourth completed; and

Whereas the need for the Folsom Dam as a flood-control and water-conservation project is vital to the economy of the State of California; and

Whereas the county of Sacramento has always been concerned with the menace of floodwaters from the American River; and

Whereas in November and December 1950 floods of unprecedented proportions from the American River caused extensive damage in the vicinity of Sacramento: Now, therefore, be it

Resolved, That the Board of Supervisors of the County of Sacramento, State of California, earnestly urge the appropriation of $18,130,000 as set out in the Executive Budget be authorized to continue construction on the Folsom Dam; and be it further

Resolved, That Charles W. Deterding, the county executive for the county of Sacramento, State of California, be authorized to personally appear before congressional committees in Washington, D. C., to present the facts and the need for the Folsom Dam.

Passed and adopted by the Board of Supervisors of the County of Sacramento, State of California, this 18th day of February 1952, by the following vote, to wit:

Ayes: Supervisors, Bonetti, Elmer, Hoffman, Kelley, Garlick.

Noes: Supervisors, none.

Absent: Supervisors, none.

JAS. R. GARLICK,
Chairman of the Board of Supervisors, Sacramento County, Calif.

Attest:

C. C. LARUE, *County Clerk.*
[SEAL] By WM. H. DICK,
Deputy Clerk

STATEMENT OF CHARLES W. DETERDING, COUNTY EXECUTIVE, SACRAMENTO, CALIF.

Mr. Chairman and gentlemen of the committee, my name is Charles W. Deterding. I am the county executive of Sacramento County, Calif. I have been instructed by the board of supervisors to appear before your committee and urge approval of the appropriation as set out in the Executive budget, to continue construction on the Folsom Dam project, in the next fiscal year.

In addition I have been authorized to represent the Sacramento Chamber of Commerce.

Several contracts are now authorized by the Corps of Engineers on the Folsom Dam project. The principal work under construction at the present time is as follows:

The inlet and outlet channels along with the diversion tunnel located under the right abutment of the main dam is approximately 40 percent complete. This work is being performed by T. E. Connolly, of San Francisco, Calif.

Excavation for the right and left abutments in solid rock is approximately 85 percent complete. This work is located in the main channel of the river and is being performed by the Earl Parker Co., of Marysville, Calif.

The earth-fill auxiliary dam at Mormon Island is being constructed by the D. & H. Co. of Santa Ana, Calif. This is an earth dam of considerable size, and is a major part of the Folsom Dam project. This dam has an average height of 120 feet and a length of 1 mile. It is approximately 70 percent completed.

The contract for the construction of the main dam has been awarded to the Savin Construction Corp., of East Hartford, Conn., and Merritt, Chapman & Scott, of New York City.

The preliminary work for this contract is now under way. The major portion of the construction will start after the flood season when the river flow can be diverted through the diversion tunnel.

Other miscellaneous items of the project completed are five of the eight earth-fill dikes and the Government administration and service buildings. Land acquisitions are about 45 percent complete, road relocations are 35 percent complete, power-line relocations are 10 percent complete, relocation of North Fork Ditch and Natomas Water Co. facilities are 20 percent complete.

From now on, as you can see from the progress of the work, it is imperative that the whole project must be so coordinated that each operation will fit into construction schedules.

The construction of a project of the magnitude of the Folsom Dam, involves complicated and well-thought-out engineering planning. To maintain efficient over-all operation, the work must be thought of in its entirety.

Schedules of delivery of materials, performance of personnel, and machine operation must be so coordinated that maximum efficiency will be obtained at all times. A timetable scheduling all phases of the work must be prepared in order to maintain efficient over-all construction during 1953. Such a time-

table of performance can only be predicated on the assumption that funds are available to do the work.

The total funds appropriated to date for construction of Folsom Dam and Reservoir are $15,952,000, of which $6,870,000 were appropriated for the fiscal year 1952.

For the fiscal year 1953, it is proposed to spend $18,130,000 for the following items, to efficiently and economically carry on the work in conformity with good constricting practice:

Land acquisition, roads and utilities relocation, main dams and appurtenances, Mormon Island Dam and dikes, power features in the dam for the Bureau of Reclamation, Government camp facilities, firebreaks, and reservoir cleaning.

It is contemplated that the over-all project will be about 28 percent completed on June 30, 1952.

In discussing the Folsom project with you, it is necessary to repeat what I have so often said in the past. Sacramento is still located in the path of the American River, subject to all uncertainties that are peculiar to that stream.

Each year in appearing before you I have emphasized the serious flood menace that prevails on the lower American River because of conditions that exist on the catchment area above.

The American River watershed, like all watersheds, has characteristics that are largely peculiar to itself. It is an area of exceptional heavy snowfall. Depths of snowfall to 600 inches are not uncommon, and 300 inches of compacted snow with a water content of 35 to 45 percent is quite common. This heavy snow fall is largely in the higher altitudes, 6,000 to 10,000 feet on the west slope of the Sierra Nevada Mountains. The zone between 3,000-feet and 6,000-feet elevation is subject to very heavy rain or snowfall. The lower zone from Sacramento, elevation approximately 30 feet to 3,000 feet is subject almost entirely to rain of heavy intensity.

Each year, because of the meteorological characteristics of the area, storms of various forms and intensity dominate the whole watershed. These storms may come in the form of heavy snow, freezing temperatures, rain, or snow on the lower altitudes, varying in intensity and duration. A heavy snowfall with freezing temperatures may be followed by a warm rain, resulting in floods in the vicinity of Sacramento.

During the last half of November and the first week of December 1950, a storm of unusual warmth resulted in a precipitation of approximately 42.5 inches of rain on the upper reaches of the American River watershed. The maximum intensity for a 24-hour period, 7 inches on November 18. This resulted in a runoff of unsual portions, producing a maximum discharge of 210,000 cubic feet per second at Folsom. This was less than the flood of 1861 and 1862. The flood of 1906–7 resulted in a discharge of 186,700 cubic feet per second.

A study of the records of a hundred years of runoff from the watershed of the American River establishes no set pattern of floods or what can be expected from year to year. On the other hand, however, it does establish the fact that should a combination of meteorlogical and hydrological conditions develop over the whole watershed it is conceivable that a flood of far greater volume than we have ever known may occur.

This water year an entirely different condition presents itself. Through late December and early January, storms of great fury broke forth, leaving an excess of 200 inches of compacted snow on the higher altitudes of the American River watershed. This was a storm of blizzard proportions, and stopped the railroad and highway traffic for 10 days. Not since the years 1890 has the railroad had its trains snowed in for such a long period. The Southern Pacific's luxurious streamliner was snowed in for 2 weeks, and the main transcontinental highway was closed for a month.

Sacramento now sits below this great snow cover, anxiously watching the weather, hoping that as the warm days of March approach, they will not be accompanied by rains of great intensity.

The hydrology of the American River watershed is most complex. Our concern has always been that a proper coordination of all the factors that enter the problem would develop a run-off that would have disastrous effects on the developed areas around Sacramento.

In the water year 1950–51, large areas of highly improved property were inundated—homes were damaged, levees washed out, and major highways were flooded for long periods of time.

Today we are concerned that the same conditions may be repeated this year.

So I am sure that you can appreciate the feelings of the people in Sacramento and why they have sent me here to urge this appropriation for the Folsom Dam.

I respectfully request that you give consideration to our problem, realizing the flood hazard we are subject to, and authorize the appropriation requested in the Executive budget.

Large areas that are now subject to overflow are in great demand for development because of our rapidly increasing population. This cannot be realized until Folsom Dam can effect flood control on the American River. For the protection of property from floods the Folsom project will produce beneficial results in the overflow areas and will materially reduce the pressure on the levees.

The Folsom project is an economic undertaking, and will pay returns immediately upon completion. There is at present a demand for water and power in the service area, and flood benefits will become effective when the Dam is apprximately one-half completed.

Four hundred thousand acre-feet of the Folsom Reservoir is reserved for flood control. This will provide sufficient regulation of the floods on the American River to assure the control of excess run-off by the flood canals now provided in the vicinity of Sacramento.

Your approval of the appropriation as now provided in the Executive budget would most sincerely be appreciated by the citizens of Sacramento City and Sacramento County.

RESOLUTION ADOPTED BY THE SACRAMENTO CITY COUNCIL, MAY 8, 1952—FOLSOM DAM

Whereas the American River, a tributary of the Sacramento River in the Sacramento Valley, continues its hazardous floods and threats to the city and county of Sacramento and surrounding territory; and

Whereas the American River upon which the Folsom Dam is now in course of construction and more than 25 percent completed, with its many tributaries and watershed reaches high into the Sierra Nevada Range in an area which receives extremely heavy snowfall and pack; and

Whereas floods during 1950 of unprecedented proportions from the American River caused millions of dollars' damage in the vicinity and immediately adjacent to the eastern and northern boundaries of the city: Now, therefore, be it

Resolved, That the City Council of the City of Sacramento hereby earnestly memorializes Congress to appropriate the necessary funds to continue the construction and completion of Folsom Dam on the American River with its multiple and invaluable benefits and advantages to all of central California at the earliest possible date in order to conserve this vast waste of water and permament relief from the ever-present flood menace, and; be it further

Resolved, That Charles W. Deterding be and he is authorized and requested to personally appear before the appropriate congressional committees in Washington, D. C., as the representative of the city council and the people of said city and there present the pertinent facts and urge the imperative need of Folsom Dam.

Adopted by the City Council of the City of Sacramento in regular session assembled on this 8th day of May 1952.

H. G. DENTON,
City Clerk of the City of Sacramento.

[SEAL]

FLOODS FROM AMERICAN RIVER

Mr. DETERDING. I have appeared so often before your committee in support of the Folsom Dam project that there is little that has not already been said.

The flood hazard at Sacramento from the American River is as acute as ever.

We in Sacramento, however, are most vitally concerned over the possibility of floods from the American River. Each year, in presenting the urgency of rapidly completing the Folsom Dam, I have described conditions, as they exist on the Sierra watershed of the American River.

Some years there has been little snowfall to cause floods, and a shortage of summer water followed; while other years, depths of snow in excess of 300 inches have been recorded.

There was equivalent to approximately 5 feet of water on the higher elevations of the American River watershed this spring, so I am sure that you can visualize what would happen if we should have had a warm rain of great intensity.

November 18, 1950, 7 inches of rain fell in a 24-hour period on this area.

A study of the records of the runoff of the American River for the past 100 years establishes the fact that excessive floods are the result of certain weather patterns and watershed conditions. The proper synchronizing of these two conditions could result in floods of greater proportions than we have ever known. Every river at some time in its history produces a flood far greater than has ever been recorded. We in Sacramento are fearful that the American River may develop a flood of disastrous proportions any winter. The need for the Folsom Dam, we think, is well founded.

CONSTRUCTION PROGRESS ON FOLSOM DAM

Most of the work of constructing the Folsom Dam is now covered by contracts. It is estimated that by June 30, 1952, approximately 28 percent of the construction will be completed. Because of the number of contractors and the magnitude of the work, it is imperative that all the operations be planned and coordinated so that the most efficient program of construction can be carried out.

To do this, the contractors have set up schedules of operation and performance in conformity with well-thought-out engineering construction practice. Such a timetable must, of necessity, be predicated on considering the job as a whole. That, of course, can only be done by having sufficient funds available to carry out the contemplated program.

The total funds appropriated to date for construction of the project are $15,952,000, of which $6,870,000 were appropriated for the fiscal year 1952.

For the fiscal year 1953 it is estimated that $18,130,000 will be required to efficiently carry on the work in conformity with good construction practices.

The following are some of the items of work which is now progressing and which should be continued:

Land acquisitions, roads and utilities, relocations, main dam and appurtenances, Morman Island Dam, and dikes, power features, firebreaks, and reservoir cleaning.

Construction on the diversion tunnel is progressing rapidly. The schedule provides that the river can be diverted through the tunnel this spring, after the flood season. The dam contractor will then vigorously move into the river channel, excavate for the dam foundation, and with all possible speed start pouring concrete so as to be out of the bottom of the river by November. This is going to require good planning, and there must be sufficient funds to support such an operation.

Sacramento County is anxious to get the dam constructed as soon as possible. There is a very heavy snow pack on the higher alti-

tudes of the watershed this year. We are watching the weather reports every day, anxiously hoping that normal-weather conditions will prevail.

Sacramento will only feel safe when the Folsom Dam is completed.

The Folson project is economically justifiable. It will start returning revenues immediately upon completion. A sound fiscal policy would seem to indicate that early completion of the dam is desirable.

Therefore, we earnestly urge that the appropriation requested in the Executive budget be authorized.

The county of Sacramento is cooperating with Federal engineers in every way possible. The county is constructing roads in the vicinity of the dam wherever needed. A four-lane highway is now being constructed from the town of Folsom to the dam.

Proper zoning ordinances have been passed by the board of supervisors. All the area in the vicinity of the reservoir is under proper regulation and control. The county and Federal representatives meet regularly to discuss the program. The Government engineers have a full voice in the proceedings.

I would like to express to the committee my appreciation for the consideration you have always given the Folsom project. Thank you for the privilege and opportunity of presenting the Folsom project to you.

Chairman McKellar. We are very much obliged to you.

STATEMENT OF CHARLES L. KAUPKE, WATER MASTER, KINGS RIVER WATER ASSOCIATION, FRESNO, CALIF.

PINE FLAT DAM

Mr. Griffith. Mr. Charles L. Kaupke, water master of the Kings River Water Association, who will speak on Pine Flat.

Mr. Kaupke. Mr. Chairman and gentlemen of the committee, my name is Charles L. Kaupke. I reside in Fresno, Calif. For the past 34 years I have been the chief engineer and water master for the Kings River Water Association and its predecessors.

I am authorized to represent the association and also the Kings River conservation district, a public agency created by the California Legislature last year and approved on December 18, 1951, by a vote of the people.

Both the association and the district represent, in their turn, the diverters and users of Kings River water in a service area of 1,100,000 acres.

FLOOD CONTROL, IRRIGATION, AND POWER FEATURES

Pine Flat is a multiple-purpose project. It will serve flood control, irrigation, power, and other purposes.

Chairman McKellar. Let me ask you this question at this point: Is the demand for additional power considerable in that locality?

Mr. Kaupke. It is, Mr. Chairman.

Chairman McKellar. What is it used principally for, manufacturing?

Mr. Kaupke. No, sir. One of the purposes, one of the chief purposes in the immediate area is pumping water for irrigation from wells. I will touch on that in just a moment.

The Kings River service area is one of the most productive in the world. It has been brought to its present state of intensive development during the past 90 years by the farmers themselves. It is served by distribution systems which have cost the farmers more than $70,000,000 of their own money. The gravity water supply is supplemented by 19,000 pumping plants, costing at least $30,000,000. There is no public land in the area, and none in need of reclamation.

What the 35,000 farm families within the Kings River service area do need is protection from damaging floods and better regulation of the river.

The Pine Flat project now under construction by the Corps of Engineers, Department of the Army, will provide them with both.

We are ready, willing, and able, to pay a fair price for the conservation benefit.

May I add this word of explanation? The Kings River Water Association is an unincorporated association composed of 31 irrigation districts, mutual water companies, and private corporations.

Neither the association, nor the mutual water companies and private corporations, can execute repayment contracts with the Bureau of Reclamation. Hence the need for a public district such as the Kings River conservation district which does so qualify.

Mr. Chairman, I want to assure you and the members of your committee, that we have left no stone unturned in our efforts to negotiate a repayment contract for the irrigation benefit of the Pine Flat project, with the Bureau of Reclamation.

EXPENDITURES TO DATE

Meanwhile the Pine Flat Dam is being built. To date, Congress has appropriated $30,165,000 for the project, and a little more than half of the concrete has been poured, the average height of the structure is nearly one-half of its finished height.

During last December, and again in January, even this low barrier served a very beneficial purpose by holding back the crests of two flash floods and undoubtedly saved much valuable property from damage.

However, some 30,000 acres of highly productive Tulare Basin land are under water. Within 2 months the situation is certain to be much worse than that.

IMPENDING FLOOD CONDITIONS

During this winter, California has received the heaviest precipitation that has been recorded for many years. On the Kings River watershed there is now more snow, with a greater water content, than has been measured on this date since the snow surveys were initiated by a State agency in 1930. Yet, in the spring and early summer of 1938, the Kings River run-off amounted to 175 percent of normal and 140,000 acres of Tulare Lake Basin lands were flooded, with a consequent loss of millions of dollars.

The Lake Basin received in-flows in subsequent years and did not become completely dry again until the autumn of 1946.

Water in the Tulare Lake Basin can be disposed of in two ways, pumping on to the surrounding area and by evaporation. Further

in-flow next year would extend the inundated area and cause more serious losses.

According to a survey made a few days ago, it appears at least 75,000 acres of agricultural land will be flooded this year. These lands are planted to cotton, grain and alfalfa. The gross value of these crops, if brought to maturity, is estimated to be about $14,000,000.

Thickly populated rural areas in the Centerville Bottoms, and along the stream channels, downstream from U. S. Highway 99, near Kingsburg, are also in danger of being inundated. It is feared that the levee system along the river channel will not be adequate to afford complete protection.

The point I wish to stress is, that after 7 years of deficient precipitation, the Kings River area is now confronted with a flood year, and it is well within the bounds of probability that central California weather is entering a wet cycle such as records show has occurred several times in the past 50 years.

These facts and probabilities seem to the Kings River agency to point up the urgent need for completion of the Pine Flat project within the shortest possible time.

AMOUNT REQUESTED

The President's budget allocated $9,500,000. The House reduced this to $8,000,000. We believe that $12,000,000 will be needed to keep this project moving forward at full speed.

We are cooperating with the Corps of Engineers on a plan to operate the partially completed Pine Flat Dam and Reservoir for flood control, during the current snow-melt flood season.

The method of operation will be such as to provide the maximum practicable degree of flood protection without unduly interfering with the construction program.

RESERVOIR CAPACITY

It is estimated that the reservoir will have a capacity of nearly 200,000 acre-feet at the beginning of the snow-melt season, and about 300,000 acre-feet at the end. The stored waters will be retained only to prevent floods. Such water will be released as soon as the capacities of the downstream channels will permit. However, it is not intended to make releases to the San Joaquin River through Fresno slough, which will increase flood flows on that stream over what they would have been without the operation of Pine Flat Dam.

On behalf of the Kings River Water Association and the Kings River conservation district, I therefore respectfully urge that Congress appropriate the sum of $12,000,000 for Pine Flat construction during the fiscal year 1953. This sum has the approval of the California Water Resources Board. It is also the amount needed to keep work on the project going at its present rate.

In conclusion, let me say that I am fully aware of the need for Federal economy, in view of the present world situation, and the necessity for adequate national defense. The Pine Flat project actually is an important part of the defense picture. It is needed not only to protect 1,000,000 acres used for production of essential food and fibers; it is

also needed to protect rail and highway lines of communication between the rest of the State and the Nation, and the ports of Oakland and San Francisco.

The floods in November 1950, to which Kings River made a substantial contribution, cut most of these lines and caused a serious tie-up of freight traffic for several weeks. It would be dangerous, if not fatal, to have a similar disruption of communication during a period of greater emergency.

Mr. Chairman, at this time I wish to request that my prepared statement be made a part of the record.

Chairman McKellar. Without objection, it is so ordered.

(The statement referred to follows:)

STATEMENT OF CHARLES L. KAUPKE, CHIEF ENGINEER AND WATER MASTER, KINGS RIVER WATER ASSOCIATION

My name is Charles L. Kaupke, I reside in Fresno, Calif. I am, and for the past 34 years, have been the engineer and water master for the Kings River Water Association and its predecessors. This association, organized in 1927, now consists of 31 irrigation districts, mutual water companies, and corporations embracing nearly all of the lands irrigated by Kings River and generally referred to as the Kings River service area. The gross area is 1,100,000 acres.

I am also authorized to represent the Kings River conservation district, a public district created last year by the State legislature of California. This district covers the entire 1,100,000 acres of the Kings River service area. It provides the area with a single legal entity empowered to contract with the United States for the Pine Flat irrigation benefits, and to represent all the Kings River water users in every way necessary to secure their rights, interests, and bargaining power.

The Kings River service area is situated near the geographical center of the State of California and the San Joaquin Valley which is the southern lobe of the Central Valley of California. It is not a part of the Central Valley project of the United States Bureau of Reclamation. The project for flood control for the Kings River and the Tulare Lake Basin was authorized for construction by Corps of Engineers, United States Army in Public Law 534, Seventy-eighth Congress and commonly known as the Flood Control Act of 1944.

The estimated cost of the project, based on current prices is $51,121,000. Congress has appropriated $30,165,000. Preliminary work was commenced at the dam site in 1947. The first concrete was poured on November 1, 1950. The dam will contain 2,300,000 cubic yards. About 1,300,000 cubic yards or a little more than one-half of the total volume has been poured to date. Time of completion of the concrete work is set for June 1953. Time for completion of entire structure, including installation of gates, control mechanisms, etc., is scheduled for January 1954.

As shown above, this project qualifies fully as an authorized project under construction and, as such is eligible for further appropriations. We respectfully urge an appropriation of $12,000,000 for the fiscal year 1952. This amount has the support of the California Water Resources Board and is one of the items in the list of California projects for which appropriations are being sought by the State of California.

The Kings River Pine Flat project, while primarily for flood control, will also serve irrigation and power development. It should be borne in mind, however, that the use of the reservoir for irrigation, while substantial, will always be incidental to flood control and will not reduce or impair its usefulness for flood control.

The Flood Control Act of December 1944, authorized the project for flood control for the Kings River and the Tulare Lake Basin subject to the following proviso:

"That the Secretary of War shall make arrangements for payment to the United States by the State or other responsible agency either in lump sum or annual installments for conservation storage when used: *Provided further*, That the division of costs between flood control and irrigation and other water uses shall be determined by the Secretary of War on the basis of continuing studies by the Bureau of Reclamation, the War Department, and local organizations."

The determination of allocation of costs of this project by the Secretary of War, and concurred in by the Secretary of the Interior, dated January 31, 1947, contains

the following statement: (The complete report may be found in H. Doc. No. 136, 80th Cong., 1st sess.)

"Our estimates show that the entire Kings River project is justified for flood control alone. The need for this project is urgent as the highly developed Kings River and Tulare Lake area where local interests have expended some $70,000,000 in developing their own irrigation systems, is subject to recurring destructive floods. Statements from local interests indicate that during the past 6 years flood losses have amounted to $20,000,000. To me this indicates that the public interest demands there be no further delay in providing this project.

"* * * The Secretary of the Interior is firmly convinced that any repayment less than $14,250,000, which he has found to be well within the repayment ability of the water users would adversely affect adjacent Federal reclamation programs in the Central Valley of California * * * Obviously any division of cost to be of practical value in the public interest must be one agreed to by water users who must pay the bill and by the Bureau of Reclamation which you (The President) have charged with making repayment arrangements. I, therefore, determine, in order to meet the requirements of existing law, that the division of cost to irrigation should be set at an amount not to exceed $14,250,000, the exact amount to be as agreed upon between the Bureau of Reclamation and the local agencies concerned."

A negotiating committee composed of representatives of the Kings River Water Association and the entire board of directors of the Kings River Conservation District is actively engaged in negotiating a repayment contract for the irrigation benefits with the United States Bureau of Reclamation. It is hoped that he contract will be executed by the time the dam is completed and in operation.

It should be noted that in the reports to which reference has been made the chief emphasis is placed on flood control and irrigation service. However, there has developed in California a growing demand for more hydroelectric power for irrigation pumping, municipal, and industrial uses. Large agricultural areas in the Central Valley of California get their entire water requirements by pumping from the underground, others supplement a gravity or canal supply. Consequently, there is an increasing need for power to pump the deficiencies.

Hydroelectric power development has been considered an essential feature of all plans for flood control and irrigation service through storage at Pine Flat. Two power projects have been considered by the local irrigation interests, one utilizing the head created by the Pine Flat Dam and the other a development of the available fall in the upper North Fork of Kings River from the Wishon dam site to the backwater of the Pine Flat Reservoir. These two developments, when combined, afford a feasible project of large capacity.

It is generaly recognized that to be feasible power plants on the drainage area of Kings River above Pine Flat require storage. While the topographic conditions are favorable to high head plants with relatively short circuits, the very low stream flow during several months of the year makes storage a necessity for sustained capacity. Upper power storage cannot be used without interfering with existing irrigation requirements unless reregulatory storage is provided below such plants. Any assignment of reservoir space to power will reduce the irrigation usefulness obtainable from Pine Flat to a limited extent, but it would not and could not be operated so as to reduce the extent of flood control.

The Federal Power Commission, on December 19, 1951, affirmed its earlier order which authorized the issuance of a preliminary permit for investigating the practicability of a Pine Flat power plant to the Fresno irrigation district for itself and as trustee for other irrigation districts and interests. This preliminary permit gives the Fresno irrigation district priority for a 2-year period for a license under the Federal Power Act while the district procures data and performs the necessary work to determine whether to file an application for a license.

On December 21, 1951, the Federal Power Commission affirmed its 1949 orders which authorized the issuance of a license and a license amendment to the Pacific Gas & Electric Co. for an extensive power development on the upper North Fork above the Pine Flat Reservoir. The Secretary of the Interior has obtained judicial review of these orders for the purpose of having them set aside.

Floods on Kings River are of two general types—winter floods and summer floods. Winter floods are caused by heavy precipitation in the form of warm rains which may extend up to an elevation of 9,000 feet. Above 9,000 feet winter precipitation nearly always falls as snow. Summer precipitation is light and largely limited to thunderstorms. It is not a factor in flood control. The highest river stages occur in winter and result from warm rains falling on new snow.

These winter floods are unpredictable, spectacular, and destructive. They reach high rates of discharge, but are usually of short duration and comparatively small volume. There have been two major floods of this type in recent years, one in December 1937 with a peak of 80,000 second-feet and a volume of 125,000 acre-feet, the other in November 1950 with a peak stage of 100,000 second-feet and a volume of 150,000 acre-feet. Destructive floods of somewhat smaller stage and volume swept down the river in March 1938, February 1945, and December 1950. The 1,000,000 acre-foot Pine Flat Reservoir will hold several floods of this type without releasing any water.

Spring and summer floods are the result of the melting of excessive snow packs in the high mountains and are often of long duration and great volume and constitute the principal flood menace. The customary summer rise begins with the advent of warm weather, about the 1st of April. It reaches its peak between the middle of May and the 1st of July and then rapidly recedes. About 80 percent of the annual river discharge occurs in the 4-month period, April to July, inclusive. For example, in 1906 the river discharged 287,000 acre-feet in April, 682,000 in May 1,010,000 in June, and 1,000,000 in July. More recently in 1938 monthly discharges for the 4-month period were 352,000, 701,900, 860,100, and 401,800 acre-feet respectively. Damaging floods and extensive inundation of rich farm lands also occurred in 1907, 1909, 1911, 1914, 1916, 1937, 1941, and 1945. Records show that serious damage may result whenever the annual runoff exceeds 2,000,000 acre-feet. Inundation and damage are roughly proportional to the runoff in excess of that amount.

According to a report on water conditions in California issued as of April 1, 1952, by the State division of water resources, California's precipitation for the 1951–52 season is well in excess of normal. Snow pack on all Sierra watersheds now exceeds the long period April 1 normal. Measurements of water content at the snow courses on the Kings River watershed indicate that the snow pack holds in storage more water than has been measured on this date since 1930 when State-wide snow surveys were commenced. In this period of record are the years 1937 and 1938 when the runoff of Kings River was 149 and 191 percent, respectively, of the long-time average. Extensive flooding occurred in the Tulare Lake Basin; 140,000 acres of rich agricultural lands were inundated resulting in millions of dollars of damage to growing crops, destruction of levees, and lands kept out of production for several years.

The spring and summer runoff of Kings River, and, in fact, all Sierra snow-fed streams, will greatly exceed the long period normal. Winter and spring flows have already covered nearly 50 square miles planted to crops in this lake basin. Thickly populated rural areas in the Centerville bottoms and along the stream channels downstream from Highway 99 near Kingsburg are also in serious danger of being inundated.

The Kings River service area produces about 75 percent of the raisin grapes grown in the United States. It also produces a great quantity of dried tree fruits and canned vegetables. Cotton is grown extensively, particularly in the Tulare Lake Basin which is subjected to frequent floodings from Kings River and other tributary streams.

In conclusion, I wish to state that in coming before this committee to urge that adequate funds be appropriated to carry forward the construction of the Pine Flat project, I am fully aware that the present world situation demands the utmost economy in all nonessential expenditures. The Pine Flat project will make a definite contribution to the defense effort. This dam will protect an area of 1,000,000 acres devoted to the growing of food and fiber. It is also needed to protect lines of rail and highway communications which are indispensable to national defense.

STATEMENT OF GEORGE L. HENDERSON, BAKERSFIELD, CALIF., CHIEF ENGINEER, KERN COUNTY LAND CO.

ISABELLA DAM PROJECT

Mr. GRIFFITH. I will call on George L. Henderson, Kern County Land Co., representing Isabella Dam.

Mr. HENDERSON. Mr. Chairman and members of the committee, my name is George L. Henderson, of Bakersfield, Calif.

I am chief engineer of Kern County Land Co. and 14 canal companies which utilize most of the flow of the Kern River.

I have had 28 years experience with the Kern River and for 22 of those years I have been in complete charge of the operation of the river.

I have appeared before your committee in the last 4 years, in behalf of the Isabella Reservoir.

FUNDS REQUIRED AND EXPENDED

To the present, appropriations have been made by the Congress totaling $13,763,000. At the present time the estimated cost of the project is $20,000,000, leaving a balance of $6,237,000 to complete it.

Chairman McKellar. How much did the House recommend?

Mr. Henderson. The House recommended $4,000,000, Mr. Chairman.

Chairman McKellar. Do you want it increased?

COMPLETION OF PROJECT

Mr. Henderson. The State Water Resources Board, and I support their recommendation, have recommended $6,237,000, which would be an amount sufficient to complete the project on the basis of the present estimate.

Chairman McKellar. How long would it take?

Mr. Henderson. It should be completed within fiscal year 1953 if that money is made available.

At the present time, Mr. Chairman, there are many features of this project, such as the diversion tunnel, the relocation of some public roads, public utilities, and other facilities which have been completed, and there are two basic features remaining to be done on the project, of which, first, of course, is the construction of the main dam on the river. That has been started. A contract was let last October at a cost of approximately $6,000,000 and the contractor has started his work and under his construction schedule he will complete the dam in about March or April of next year.

The budget recommendation on this project was $4,500,000 and if the budget recommendation were passed, it would not be sufficient to complete the project because the Corps of Engineers have not had the funds to secure all of the reservoir lands.

So the picture we are faced with now is: If enough money is not appropriated to complete the project and purchase the lands, a year from now we will have a completed dam and will not be able to utilize the reservoir for flood protection.

Chairman McKellar. It is a multiple-purpose dam?

Mr. Henderson. To the extent, Mr. Chairman, that the dam and the capacity of the reservoir are far in excess of any size that we have ever been able to develop or to conceive to provide conservation storage by itself, but some regulation of the irrigation supply can be obtained at times. The flow of Kern River is so irregular through the years, that the amount of storage provided, of 550,000 acre-feet, is required for flood control, but for conservation alone, the most we could utilize in a physical sense is about one-third of that amount, if we built it for that purpose alone. Years ago we contemplated such a plan and decided against it; we could not afford it.

The people of Bakersfield and of Kern County have not forgotten the floods of November 1950, which has been referred to by the gentleman preceding me. On November 18 of that year, the river stage at flood peak stood 20 feet above the center of the business district of the city of Bakersfield, which lies on the south bank of the river.

IMPENDING FLOOD CONDITIONS

We are also conscious of the fact that the April 1 snow survey on the Kern River watershed indicated greater depth and water content than any April measurement of the past 20 years, or ever since measurements were started. As a matter of fact, the reports of the State engineer indicate that the runoff on the Kern River during the 4 months, April to July, will be 250 percent of normal.

Kern River has already started to flood. It started to rise due to snow melt conditions and warmer temperatures, about 10 days ago. It is continuing to rise.

As a matter of fact, last Tuesday, or a week ago tomorrow, I flew from Bakersfield to San Francisco, up the San Joaquin Valley. I could see the lower valley where all of the major streams, the Kern, Tule, Kaweah, and Kings were flooding thousands of acres. So, to us it is imperative that these projects be completed as soon as possible.

It is rather ironic on the Kern that we will have, a year from now, a completed dam and the inability to store water because of lack of funds to purchase reservoir lands. That situation means that if flood conditions repeat themselves next year, for example, which is not unusual, that not only will thousands of acres of rich agricultural land be again damaged and put out of production for an extended period, but great oil fields and transportation systems will be damaged. This year that problem is already with us, and we must face it.

The storage for irrigation is incidental and subject to the primary purpose of storage for flood protection. It will provide a nominal supplement to irrigation in some years, and the irrigation interests that I represent have indicated to the Corps of Engineers that they are willing to negotiate with them a reasonable sum for the use of that facility. As a matter of fact, at the present time we are actively engaged in studies with the district office of the Army engineers to determine the allocation of costs. We expect to have them well in line by next fall.

That is the situation, gentlemen. I should hope that something can be done to relieve the conditions that we face next year if we do not have the funds to make the project available for use.

These years of great floods occur irregularly. It is usually found that after an extremely high year there are other high years that follow—a sort of general pattern. Kern River does not change from a very wet year to an exceedingly dry year in a year's time.

Thank you very much.

Senator KNOWLAND. Mr. Chairman, if I might just interrupt at this point, two of the California Congressmen are here. They understand that we are working under a limitation of time in order to get through for our other committee hearing that we are going to have, and they may want to extend their remarks, by putting something into the record, which they can give us in the way of a written statement later.

I wonder if I might now call on Congressman Scudder, and Congressman Hunter to make a brief statement, if they desire, at this point?

Chairman McKellar. Yes, sir.

STATEMENT OF HON. HUBERT B. SCUDDER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

NOYO HARBOR PROJECT, CALIFORNIA

Representative Scudder. Mr. Chairman and gentlemen of the committee, I will be brief and turn in a statement on two projects which are of importance in my district.

Last year I appeared before your committee in the interest of the Noyo Harbor project. This harbor is located in Mendocino County, about halfway between Eureka and San Francisco. It is a very important fishing harbor. Over 800 fishing vessels unload their cargoes at this particular harbor. The fishing bank off this harbor is one of the best fishing fields on the Pacific coast.

Over $2,000,000 of business emanates from this harbor. Practically all of the fishing companies on the coast have processing plants located at Noyo. The fish are processed there and sent fresh-frozen throughout the country, and particularly to the Far East to our services. A harbor in my opinion is similar to a highway for transporting of food and we surely would eliminate the danger from such highway.

JETTY CONSTRUCTION

What we are asking for is money for a project that was authorized in March 1945, on which no work has been done. The jetty would protect this harbor, protect these 800 boats that are going in and out of the harbor to deliver their harvest.

Chairman McKellar. This is salmon fishing?

Representative Scudder. All types of fishing, salmon, albacore, and all types of bottom fish are caught along that area. They are fileted and shipped throughout the country. It is really a great food-harvesting center.

MODEL OF HARBOR

Now, last year you did provide $50,000 for the construction of a model for this harbor, anticipating an appropriation. Somehow or other, as things sometime happen in conference committees, it was lost.

So this year we are appealing to your committee to make some money available so that this project could be started. I assure you it would meet a very definite need.

AMOUNT REQUESTED

Chairman McKellar. How much are you requesting?

Representative Scudder. $1,250,000.

Chairman McKellar. Is that a new project?

Representative Scudder. Yes; it is in itself a new project, but could be reasonablly considered an addditional adjunct to protect a proj-

ect already built. There is a small inner harbor that is very hazardous. This project was anticipated and authorized many years ago to protect the inner harbor. In fact, the small jetty at the inner harbor is being deteriorated now from the storms that hit it, whereas, if this jetty was constructed, it would protect the entire harbor.

Senator ELLENDER. What success, if any, did you have before the House committee on these projects?

NO-NEW-STARTS POLICY

Representative SCUDDER. We received the ultimatum that no new projects would be started, and the committee held fast to it. That does not meet with my approval, I assure you. I think we are neglecting America and spending more money abroad than I personally think should be spent abroad. We should start thinking something about our own American economy, and trying to do something to protect the lives of people at home who are really filling the bread basket for us.

I do not think our present policy is right. I do not believe this necessary improvement should fall in the category of a new project, because they have already spent money and developed this harbor where almost 200 boats are registered and remain the year around in that little harbor. These people need access to the ocean. They must go to sea regardless of hazard. It does not only affect Noyo Harbor, it aflects the safety of all fishermen who ply from San Diego to Seattle. Those fishermen travel up and down the coast. They come into these harbors in order to deliver their harvest.

I would appreciate very much your consideration of this appeal. I will leave a statement for the record which I have prepared.

Chairman MCKELLAR. Without objection, it will be placed in the record.

(The statement referred to follows:)

STATEMENT OF HON. HUBERT B. SCUDDER, M. C., FIRST DISTRICT OF CALIFORNIA, ON NOYO HARBOR PROJECT

Mr. Chairman and members of the committee, the Noyo Harbor breakwater was authorized by an act of Congress on March 2, 1945. This breakwater would protect the entrance to and the inner harber at Noyo, Fort Bragg, Calif. The Federal Government has spent a comparatively small amount of money on this harbor in comparison with the utility that has been made of it. Last year over 800 fishing vessels used this harbor and an annual fish industry of over $2,000,000 a year is developed in this harbor because of the fine fishing grounds that exist. The fish that are caught here are processed and shipped to all parts of the country and particularly to the armed services in the Far East.

I appreciate the courtesy extended to me when I appeared last year before this committee. At that time you felt that the project was worthy of immediate attention and provided $50,000 for the construction of a model breakwater, anticipating an early appropriation for the work.

Unfortunately, however, this amount was stricken by the conference committee. I feel that this is a most worthy project and would be an economical investment as well as a protection to life and property. At the present time the estimate for the construction of this project is $1,250,000.

Speaking on behalf of these many men who go to sea in order to harvest food, I ask that you include sufficient money in the appropriations bill this year to take care of this local need. It is my firm belief that we cannot continue to neglect needed projects and improvements essential to the economic welfare of our country, and trust that in your wisdom you may provide for this necessary development.

Russian River Project, California

Representative Scudder. I wish to call your attention to the Russian River project which calls for the construction of a dam and storage facility on the Russian River.

The Russian River starts in Mendocino County and flows through Sonoma County. The Russian River watershed contains about 1,500 square miles of area of highly populated and productive land.

The city of Santa Rosa is vitally in need of domestic water. The only reason we have this project before you, really, is that it could not be financed if it were not for the fact that Santa Rosa, in need of domestic water, is in a position to pay for most of the local costs.

The floodwaters of this river cause a terrific amount of damage by flood every year. This project will impound water to maintain a steady flow in the river which will permit irrigation water for the recreational area near the mouth of the river, and provide domestic and industrial water for the various cities and towns along the way.

This project was authorized in May of 1950. It has been before the Congress for quite some time but was only authorized at that late date.

YEARLY FLOOD DAMAGE

The annual damage by flood is about $500,000 a year. The entire project will cost about $18,000,000. About 45 percent will be paid by the districts concerned. They have agreed to raise by bond the amount of money to be handed over to the Engineers, prior to the start of the project. The engineering costs, to put it into position for offering bids, is $438,000.

FUNDS FOR PLANNING REQUESTED

We made an appeal to the House committee for $200,000 to give the engineers an opportunity to start to develop their plans; next year we would hope to secure the balance of planning money to complete the plans, and be in a position to develop the project.

Now, the thing that disturbs me through this lack of action on a flood-control project—which is the responsibility of the Federal Government—is that the city of Santa Rosa may go elsewhere and endeavor to develop their own water supply, which would be very expensive and we would lose the opportunity of having them as the customer that would pay for the major part of the entire cost. I do not believe that the project would be practical, nor could the district finance it if the city of Santa Rosa were left out of the project. It is just that serious.

I would appreciate your consideration, to getting some start on this project at this time.

I have prepared a statement, Mr. Chairman, on this Russian River project, which I should like to leave for the record.

Chairman McKellar. Without objection, that may be placed in the record at this point.

(The statement referred to follows:)

STATEMENT OF HON. HUBERT B. SCUDDER, M. C., FIRST DISTRICT OF CALIFORNIA ON RUSSIAN RIVER PROJECT

Mr. Chairman and members of the committee, I appear before you today in behalf of the Russian River project, located in my congressional district in California.

This project, to impound water in the upper reaches of the Russian River which flows through Mendocino and Sonoma Counties, has been under consideration by the Corps of Engineers since 1937, and was authorized by Public Law 516 on May 17, 1950, by the Eighty-first Congress.

The Russian River watershed commences in east-central Mendocino County, and runs through a large portion of Sonoma County. It embraces approximately 1,500 square miles of a highly populated and productive area. The project under consideration is a multiple purpose one in that it will provide means for flood control as well as establishing a water supply source—for which there is a dire need.

On July 19, 1951, I appeared before this committee, urging that you recommend allocation of necessary funds to prosecute planning phases of the Russian River project. The manner in which my presentation was received, was very gratifying. However, since that time, the problem has become more acute.

Recurring floods this winter and the resultant damage to croplands and buildings, have added emphasis to the need for flood control. Estimates prepared by the Corps of Engineers, following a recent study, reveal that waters of the Russian River cause in excess of $500,000 in flood damages each year.

On the other hand, the ever-increasing water shortage in the same area is reaching alarming proportions. An expanding agriculture, population growth and industrial development—have had a terrific and damaging impact on the present supply of water for such use. If this shortage is to be overcome, and the area allowed to progress to the extent of which it is capable—other water sources must be developed.

The Russian River project is the means by which both the flood control and water shortage problems can be greatly relieved, and it is more imperative than ever that this project be started at the earliest possible date.

The city of Santa Rosa must have a new source of water for domestic and industrial use. If this project were developed, they will take water from the Russian River and will be the most important factor in the retirement of the construction bond.

Under the provisions in the authorization of this project, the district agrees to meet their share of the cost in a lump sum and turn the same over to the engineers before the construction work starts.

It is estimated that $438,000 would be sufficient to conduct all the planning phases of this project, necessary for the letting of contracts for construction.

I urge this committee to recommend that a sufficient amount of planning money be allocated to insure development of the Russian River project. If $200,000 were made available this year, with the balance to follow, the anxiety of the people in the area concerned would be greatly relieved.

BUDGET ECONOMY DISCUSSED

Chairman MCKELLAR. Are there any questions, gentlemen?

Senator CAIN. Mr. Congressman, may I ask without any intended prejudice of any kind, whether you generally approve the cuts which the House recommended to be made in the Mutual Security Act?

Representative SCUDDER. Yes, I do.

Senator CAIN. May I inquire as to whether or not, among your reasons for voting that way, was your hope that out of some of the savings intended, moneys might be made available for construction purposes in California and elsewhere throughout the Nation?

Representative SCUDDER. Senator, that is correct. I do not like to get into a discussion but in my opinion we have not spent an excessive

amount of money on rivers and harbors in this country since the inception of our country. In the last few years we have spent almost as much for civil functions projects around the world as we have spent in our country during the entire history of our country.

I am just American enough that I would like to see more done for building and keeping America a progressive country.

Chairman McKellar. Did the House put the same type of limitation on the projects which we are building in foreign countries?

Representative Scudder. Senator, I have only been here 4 years, and I have not found anybody who knows what they do with the money when it gets over there. Maybe somebody can check on it. I will express my ignorance of that subject very freely.

Senator Cain. You do not know, do you, sir, of any policy within the executive branch that no new start abroad shall be undertaken for projects comparable to what we are now talking about? Is there in existence any policy that says until further notice we must finish what we have done without undertaking new projects?

Representative Scudder. I do not believe so, sir.

Chairman McKellar. Nothing came up in the House about it at all?

Representative Scudder. The House committee was under orders, seemingly, to send the budget over here in just the way it was written down the street. From what I have been able to learn during the two sessions I have been in Congress, that seems to be the procedure, to cut over there and put it back over here. I do not agree with the policy, but it seems to be the way it works.

Senator Knowland. Mr. Chairman, I happened to notice in the New York Times this morning that somebody was suggesting out of good will, we might provide a $1,000,000 aditional appropriation for India to carry on some projects there in the next 3 or 4 or 5 years.

Representative Scudder. Gentlemen, I have been identified with work of this type practically all my life, and I think it is essential that we do some planning and a little looking ahead for the things we want done here in this country because, if we do not do that, we might find ourselves in a jam without proper plans for worthy and necessary projects to relieve the import of unemployment should it occur.

I think the engineers should be given ample money to make surveys, in line with work to be accomplished at some time in the future.

Chairman McKellar. We might do a little building up of our own.

Representative Scudder. Thank you.

Senator Knowland. Congressman Allan Oakley Hunter.

Merced County Stream Group

KINGS RIVER PROJECT

STATEMENT OF HON. ALLAN OAKLEY HUNTER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

PINE FLAT DAM, CALIF.

Representative Hunter. Mr. Chairman and members of the committee, my name is Allan Oakley Hunter, Representative from the Ninth District of California.

I would mention the Kings River project, Pine Flat Dam, but you gentlemen are short of time, and Mr. Kaupke, the Kings River water master, has already made a fine presentation in behalf of the Pine Flat Dam.

There are two other matters I would like to discuss briefly, because there is no one here to discuss those two projects except Mr. Griffith, chairman of the State Water Resources Board, representing the entire group from California.

PROJECT COMPLETION

The Merced County stream group is a small project. It is three-fourths completed at this time. All that is left to be done is a small dam on Bear Creek, $645,000.

This project has been going on for a number of years. We wish we could get it completed.

We have had two serious floods in that area during the last 2 years; and had this last one-fourth of the project been completed, 90 percent of that damage, it is estimated, would have been avoided. Of course, we have Castle Air Force Base in Merced County, which is now threatened.

Bear Creek Dam is not a new start because this is the fourth dam of a series of four, which are integrated.

We are hoping that the Senate will see fit to restore this item of $645,000 which was cut out by the House, applying the formula, and in my opinion erroneously, that no new starts would be undertaken.

As I pointed out, I do not believe that this is a new start. It is merely the completion of a project which has been under way for several years. This is merely an integral part.

The other matter that I would like to mention just briefly is the flood-control work to be done on that part of the San Joaquin River extending between Skaggs Bridge and the Merced River.

There is a plan conceived by the Army engineers which is now about 10 years old—it has never been carried into effect—for the acquisition of some storage and flowage easements on about 130,000 acres of land.

When this plan was conceived that land was worth about $800,000. Since then a lot of it has been reclaimed and it is valued today at at least $10,000,000. We think, therefore, the Army engineers should revise their plans, and provide, perhaps, for storage and flowage easements on lands to the east of the present planned area which would be cheaper—it is marginal land; and also, they might figure out some way to deepen the channel and straighten it out.

WATER RESOURCES PLANNING

Of course, that will require money. I understand that the Water Resources Board is asking for $100,000 for planning money for use on the San Joaquin River. We are hoping that that money will be appropriated by the Congress.

Senator KNOWLAND. That will be pretty expensive land to take over for that purpose, will it not?

Representative HUNTER. That is true. As I say, when the plan was originally conceived, the land was valued at about $800,000. Now it is valued at $10,000,000 or more. Not only the value, but the fact that

that much of it is now good agricultural land, having been reclaimed, makes a change in plan advisable. To condem it would take it out of production.

Senator CAIN. What appears to be the policy in the House with respect to moneys requested to plan new projects?

Representative HUNTER. The policy seems to be one of thumbs down at the present time.

Senator CAIN. Thumbs down on every aspect of new beginnings?

Representative HUNTER. There is no new planning, no surveys.

Senator CAIN. No new planning specifications or construction?

Representative HUNTER. With which policy I disagree.

Senator CAIN. Insofar as the needs of this country are required, as to the present attitude by way of policy, officially in the House, it is that no consideration be given to the future?

Representative HUNTER. Yes.

Mr. Chairman, I ask permission to extend my remarks and to insert in the record a statement relative to the Merced Stream group.

Chairman MCKELLAR. That will be done.

Are there any questions, gentlemen? If not, we are very much obliged to you.

(The statement referred to follows:)

STATEMENT OF HON. ALLAN OAKLEY HUNTER, REPRESENTATIVE FROM THE NINTH DISTRICT OF CALIFORNIA, ON MERCED COUNTY STREAM GROUP

Mr. Chairman and members of the committee, my name is Allan Oakley Hunter. I am a Member of Congress, representing the Ninth District of California. I am here to testify in behalf of the Merced Stream group project located in Merced County, Calif.

This is not a new project. It was authorized under Public Law No. 534, Seventy-eighth Congress, second session (1944). The law provided for the construction of four flood detention reservoirs on Burns, Bear, Owens, and Mariposa Creeks, and two canals—one to divert the flow of Black Rascal Creek into Bear Creek, and the other to divert the flow of Owens Creek into Mariposa Creek. At the present time, Mariposa Creek, Owens Creek, and Burns Creek Dams have been completed; $265,000 was appropriated during the first session of this Congress (1951) for construction of the Black Rascal Creek and Owens Creek diversion canals. No funds have yet been appropriated for the construction of Bear Creek Dam. This will require an appropriation of approximately $645,000, which amount we respectfully request that the Congress appropriate during the current session.

When completed, the project will give flood protection to some 136,000 acres in Merced County, much of which is intensely cultivated, including the city of Merced and surrounding heavily populated areas and the communities of Planada, Le Grand, and Tuttle, having a total population of approximately 35,000.

The need for the project increases with the passing of each day. This is due to the fact that the area is experiencing a continuous growth in population and expansion of agricultural, industrial, and general business activity. In addition, there is to be considered Castle Air Force Base, a key component of the Strategic Air Command, which is adjacent to the flood area.

During the November-December 1950 floods, the dam completed on Burns Creek prevented approximately $2,200,000 damage, most of which would have occurred in the city of Merced. The completed Mariposa and Owens Dams prevented damage estimated at $300,000. Even with these dams, surveys of the Corps of Army Engineers show that the 1950 floods caused damage totaling $395,000.

This year two floods occurred during January. The flood damage was substantial but not as much as in 1950. We have no information as yet concerning any estimate by the Corps of Army Engineers as to damage caused by these floods. Again, much further damage would have occurred had it not been for the existence of those parts of the project already completed; and had Bear Creek Reservoir and the two diversion canals been completed, the damage would have been even far less.

It is extremely important to bear in mind that Bear Creek Dam is neither a new nor independent project. It is an integral and necessary part of an existing project which is substantially completed. Because of the diversion features and the close interrelation of the areas subject to flooding from this group of streams, full benefits cannot be realized from individual structures until the project is completed as a whole. For instance, Bear Creek affords the greatest threat to the city of Merced and environs and that threat will not be removed until Bear Creek Dam is completed and in operation. Also, constructing the diversion canal from Black Rascal Creek to Bear Creek will not be feasible until Bear Creek Reservoir has been constructed to regulate the flow of Bear Creek.

The Merced Stream group project is one which requires that construction proceed in a definite manner. It is first necessary that the reservoirs on the streams of this group be build before any channel work is constructed diverting additional waters into the streams upon which reservoirs are to be built.

I, therefore, respectfully request that $645,000 be appropriated by this committee and by the Congress for the construction of Bear Creek Dam. This request has been approved by the California State Water Resources Board. Assurances have been given by the Corps of Engineers that construction can be completed, if said amount is appropriated, during the fiscal year ending June 30, 1953.

APPENDIX

FLOOD DAMAGE

1950—Agriculture: Estimate of 1950 flood damage to agriculture in the area comprising the Merced Stream group, based upon spot check and information secured from growers:

Alfalfa, 6,500 acres (2,200 acres flooded):	
1,600 damaged, immediate loss of feed, partial loss of stand	$48,000
600 total loss at $130 ($80 loss of crop plus plowing, leveling, checking, and reseeding, $50)	78,000
Permanent pasture, 11,000:	
3,000 acres damaged, $10 per acre, loss of feed, reduction in stand	30,000
200 lost (plow, level, check and seed)	14,000
Cotton: 400 acres, ½ bale per acre	26,000
Grain (barley, wheat, oats): 700 acres drowned or washed out	42,000
Milo: 400 acres not harvested	24,000
Turkeys: 3,000 head at $6.50	19,500
Livestock	3,500
Rice: 120 acres not harvested	30,720
Feedstuffs: Water damaged	10,000
Almonds, 1,000 acres: Sour sap, gummosis, decrease in production	10,000
Peach, nectarine, and apricot: Erosion, sour sap, gummosis, rot, decrease in production	10,000
Figs: Erosion, improper pruning, and timing of applications of insecticides and fungicides, decrease in production	15,000
Farm buildings, fences, etc	65,000
Total, 1950	425,720

1952: The flood damage in the 1952 flood was substantial but not as much as the 1950 damage. Photographs will be entered into the record showing examples of 1952 flooding.

Two floods occurred during the month of January 1952, which is unusual; the normal time being March, April, and May.

FLOOD DAMAGES AS ESTIMATED BY THE CORPS OF ARMY ENGINEERS

The immediate flood damage in the November and December floods of 1950 as of surveys by the Corps of Army Engineers is estimated as follows:

Damage on Bear Creek above Bear Dam site	$5,000
Damage on Mariposa Creek above Mariposa Dam	82,000
Damage on Bear and Burns Creeks below Burns Dam and below Bear Dam site	275,000
Damage on Mariposa and Owens Creeks below Mariposa and Owens Dams	33,000
Total damage	395,000

WHAT IS AFFECTED

Military Establishment

Castle Air Force Base. This base is a key base in the Strategic Air Command organization, and is adjacent to the flood area. The base is furnished with gas and power lines which run through Merced which is also the junction point for the Bell Telephone trunk lines which serve as a means of communication for the base.

A hazardous flood, which constantly threatens the area with the incompleted project, could cut these lines and impair the operations of this base.

Transportation

Highways: Highway 99 running from the Canadian to the Mexican border travels through this area, also the all-year highway to Yosemite Valley, which during World War II had extensive Army and Navy travel. Many farm-to-market roads in the floods in November and December of 1950 were inundated—some of them for several weeks.

The estimated damage by the Merced County Road Commissioner on farm-to-market roads in the Merced Stream group is $55,315. Similar damage has occurred in the two floods of January 1952, but not as extensive.

Railroads: The Southern Pacific Co.'s main line from Los Angeles to Seattle runs through the area flooded by the Merced Stream group, as does the Santa Fe from Los Angeles and San Diego to San Francisco, Oakland, and the Bay area. Both lines handle a heavy traffic of food and fiber and military supplies. These roads carry main-line traffic from the East, and are used as carriers of military personnel.

During the recent textensive snowfall in the Sierra Nevada Mountains in California all transcontinental trains were rerouted over the Southern Pacific and Santa Fe lines which pass through this potential flood area. Its blocking due to floods could further hamper the flow of transcontinental traffic.

Trucks: One of the largest truck lines in California, Miles & Sons, which operates all over the State, has its main terminal in Merced. This truck service was severely interrupted by the floods of 1950 and at times there was a complete shutdown on transportation of their lines and many other truck lines. About 40 percent of Miles & Sons business is for the national defense program.

Industry

Food-processing plants: We have many canneries and food-processing plants in this flood area. The largest of these is the Bear Creek cannery and the Yosemite freeze plant, which are combined. This is a statement of their 1950 production summary:

Product	Daily capacity basis 24 case	Frozen	Canned	Month
Broccoli	4,000	$300,000	----------	November–March.
Sprouts	2,000	40,000	----------	
Spinach—fall	3,000	100,000	$100,000	November–December.
Spinach—spring	3,000	100,000	100,000	March–April.
Asparagus	3,000	140,000	60,000	April–May.
Cauliflower	2,000	50,000	----------	
Boysenberries	4,000	40,000	40,000	June.
Strawberries	4,000	100,000	----------	May–June.
Corn on cob	5,000	200,000	----------	June–September.
Cut corn	2,000	75,000	75,000	June–October.
Apricots	10,000	----------	200,000	June–July.
Freestones	5,000	150,000	100,000	August–September.
Kadota	5,000	----------	100,000	September–October.
Applesauce	3,000	----------	150,000	November–January.
Miscellaneous preserves	3,000	----------	300,000	
Total	----------	1,295,000	1,225,000	
Grand total	----------	2,520,000		

Sixty percent to 80 percent of the processed foods are contracted by the United States Quartermaster Corps; all of the figs are contracted by the United States Quartermaster Corps.

The Planada Packers operate a cannery in the flood area which will process for the coming year 175,000 cases of figs, peaches, and apricots, of which 35,000 cases (estimated) of figs will go to the Armed Forces.

Ayers & Held operate a dried-fruit packing plant 1 mile from Bear Creek. Production for the coming year is estimated at 200 tons of figs, 20 tons of prunes, 20 tons of apricots, 20 tons of dates, 10 tons of pears, 8 tons of peaches, plus other fruits and nuts.

This firm lost all its shipping cartons during the 1950 flood. Ayers & Held expect to deliver a substantial portion of its tonnage to the Armed Forces.

There are several other firms in this immediate area which process foodstuffs.

Health: The 1950 overflow of Bear Creek produced a serious health hazard in those inundated areas. In recent times areas of dense habitation have developed in the paths of the above-mentioned Bear Creek. One such area is at the corner of Kibby Road and United States Highway No. 140, which continues then to Childs Avenue, and on to the Weaver Union School at Childs and Coffee Avenues.

This 1950 flooding not only caused damage to homes and generally unhealthy conditions, but also caused flooding of septic tanks and wells. The Weaver Union School well remained polluted for over 45 days, because it was below the heavily populated area at Kibby Road and United States Highway No. 140, where there are about 100 homes, wells, and septic tanks.

It is the health officer's opinion that the flooding of these wells by this sewage, contaminated for some time the underground water strata. This is just one specific example of many such situations resulting from the overflow of Bear Creek. Even in 1952 there still remains one domestic well which is still polluted.

A number of Army families live in the area.

The health officer of Merced County urgently requests that serious steps be taken for the badly needed flood control on Bear Creek.

Schools: Weaver Union School was seriously flooded from Bear Creek in 1950, endangering the lives and health of some 500 pupils. Other schools were badly endangered by these floods. These schools obtain their domestic water from wells on the ground. There is no other available source of domestic water.

City of Merced: Merced, Calif., being located downstream on Bear Creek, is in the direct line of flow from any overflowing of Bear Creek east of the city. During the 1950 flood a considerable area in the eastern part of Merced was inundated and remained so for as long as 3 weeks after the original flooding.

The city of Merced has been flooded many times as a result of Bear Creek overflowing. The 1936 and 1937 city flood photographs are already in the records of this committee.

Mr. GRIFFITH. We have one more witness, Mr. Chairman, Mr. Sam R. Leedom, administrative assistant of our board.

STATEMENT OF SAM R. LEEDOM, ADMINISTRATIVE ASSISTANT, STATE WATER RESOURCES BOARD

PLANNING FUNDS

Mr. LEEDOM. Mr. Chairman and gentlemen of the committee, I am Sam Leedom, administrative assistant of the State water resources board.

In connection with the question that was just raised, I do not know whether this is the answer or not, but for the Corps of Engineers, as I recall the appropriation requested for planning, and this is the survey money we are talking about, was some $2,700,000.

I think it was reduced to one-sixth of that amount, or approximately that.

In H. R. 7176, the appropriation bill for the Interior, for engineering and economic investigations, of proposed Federal reclamation projects, and so on, $3,000,000 was appropriated.

Senator CAIN. For planning?

Mr. LEEDOM. For planning.

Senator CAIN. Does that planning item cover intended projects, new projects, for the future?

Mr. LEEDOM. I believe that that is for general planning.

Senator CAIN. At a later date, should I be given an opportunity, I would like to address a question or two to one of the Corps of Engineers, just so long as our record is straight, on what the policy actually appears to be.

Thank you.

STATEMENTS IN REGARD TO CALIFORNIA PROJECTS

Mr. LEEDOM. Mr. Chairman, we have several representatives who could not be here today. I would like to introduce a statement in behalf of the county of San Joaquin on flood control on the San Joaquin River and its tributaries, prepared by Walter B. Hogan, and I ask that it be made a part of the record.

I have received a statement from Mr. Abner Crowell, of the Turlock irrigation district, who would have appeared on the Cherry Valley project, which he asked me to introduce into the record.

I have a similar statement on the same project from Mr. H. E. Lloyd, representing the San Francisco Public Utilities Commission, of San Francisco.

I also have a statement from Milton Kidd, director of the Modesto irrigation district, regarding the same project.

We have no one here from San Bernardino County, and Mr. Frank Mogle, chairman of the board of supervisors, requested that I introduce a statement prepared in his behalf on the Santa Ana River and its tributaries.

The San Antonio Dam has been mentioned by Colonel Hedger. San Bernardino County is also interested in that project and Mr. Mogle would like to have his statement on that project in the record.

The other statement I have is a rivers and harbors statement from Morris Montgomery, mayor of Santa Barbara, regarding the dredging of Santa Barbara Harbor.

Chairman MCKELLAR. Without objection, those statements will be made a part of the record.

(The statements referred to are as follows:)

STATEMENT OF W. B. HOGAN, STOCKTON, CALIF.

FLOOD CONTROL OF SAN JOAQUIN RIVER AND ITS TRIBUTARIES, EMBRACING COUNTY OF SAN JOAQUIN; STOCKTON EAST SAN JOAQUIN WATER CONSERVATION DISTRICT; NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT; FLOOD CONTROL ASSOCIATION OF LOWER SAN JOAQUIN RIVER AND ITS TRIBUTARIES, CALIFORNIA

PREFACE

We are not unmindful of the national and international situation that exists in the world today.

We are fully cognizant of the many economic, military, and financial problems which now confront our Nation and which must be resolved by the Congress of the United States.

We feel, however, that even in periods of national emergency we should try to continue with our internal improvements as they have a national defense value also.

During the recent World War we carried on at a fairly large scale and we should be able to carry on on a reasonable scale during the present emergency which may last for years.

We feel that we would be remiss in our duty to our respective localities if we did not briefly present to your honorable body an account of some of the vicissitudes of nature which have so recently been heaped upon us with such destructive intensity, and which have a direct bearing upon national, State, and local welfare, to wit: the 1950 November and December floods in the Central Valley of California.

INTERESTED PARTIES

This statement is being presented by W. B. Hogan, a consulting engineer, representing the following entities, and with the request that it be inserted in the records:

(1) The county of San Joaquin.
(2) The Stockton and East San Joaquin Water Conservation District.
(3) North San Joaquin Water Conservation District.
(4) The Flood Control Association of the Lower San Joaquin River and its tributaries.

A brief description of the above organizations follows:

County of San Joaquin

The county of San Joaquin is a political subdivision of the State of California, lying at the foot of the western slope of the Sierra Nevada Mountains just east of the confluence of the Sacramento and San Joaquin Rivers. A large portion of the county lies in the delta of these two rivers. The county contains nearly 1,000,000 acres of exceedingly fertile land.

Population in 1950 was	210,000
Assessed valuation	$300,068,435
County seat: Stockton, population (including metropolitan area)	125,000
Value of commercial crops, 1951	$161,412,000

Ranks fourth in the State and fourth in the United States in total value of agricultural products.

Stockton East San Joaquin water conservation district

A political entity organized under the laws of the State of California primarily for the conservation and development of a water supply for irrigation and domestic and industrial uses. It comprises a highly developed agricultural area and includes about 16,000 acres of urban development. Many large and important industries are located in the urban area.

Area	acres	84,000
Population, including city of Stockton (approximately)		140,000
Assessed valuation (land only)		$37,119,800

North San Joaquin water conservation district

A political entity organized under the laws of the State of California primarily for the conservation and development of a water supply for irrigation, domestic, and industrial uses. It comprises a highly developed agricultural area.

Area	acres	52,000
Population, including the city of Lodi (approximately)		25,000
Assessed valuation (land only)		$12,109,140

The Flood Control Association of the lower San Joaquin River and its tributaries

A voluntary organization representing owners of approximately 150,000 acres of land along the lower San Joaquin River and in the Delta.

Organized in 1938 for the purpose of securing flood protection for the lands and communities it represents.

OBJECTIVES

On behalf of the listed organizations herein, I am requesting appropriations for the following Federal-authorized projects in the amounts set forth:

(*a*) San Joaquin River levees, $100,000.
(*b*) New Melones Dam, $25,000.
(*c*) New Hogan Dam, $25,000.

The above requests are far below those made by local interests to the California Flood Control Conference (a State-wide voluntary group interested in

flood control) and to the California State Reclamation Board (a State agency). However, they are the amounts recommended by the California State Water Resources Board (a State-wide agency), and it is the desire of local interests to cooperate with and coordinate their activities with said board. We are, therefore, following their recommendations with the hope that your honorable committee will give initial favorable recognition to our requests.

PREVIOUS REQUESTS

Requests have been made on several occasions to previous Appropriations Committees of both the House of Representatives and the Senate for initial appropriations for each of these projects, in amounts of $500,000 and more. To date, with the exception of small sums appropriated for planning, no funds for actual construction have been appropriated.

STREAMS IN SAN JOAQUIN COUNTY PRESENTING FLOOD PROBLEMS

San Joaquin County lying as it does just east of the confluence of the Sacramento and San Joaquin Rivers, with a large portion within the delta of these two rivers, is in the most precarious position, with respect to floods, of any county in the Central Valley of the State of California.

The county suffers from floods on each of the following streams:

(1) San Joaquin River from the delta to Friant Dam and the following tributaries:
(2) Stanislaus River.
(3) Calaveras River.
(4) Bear Creek.
(5) Mokelumne River.
(6) Dry Creek (tributary to the Mokelumne River).
(7) Cosumnes River (tributary to the Mokelumne River).
(8) Lower River Delta Waterways.

On each of the three first streams listed above there are Federal and State-authorized projects, the status of which will be set forth later in this statement.

On the last four streams above listed, authorized surveys and reports are now being made by the United States Army Engineers.

In addition to the above listed streams upon which there are Federal and State-authorized projects, the following tributaries of the San Joaquin River above the Stanislaus River contribute to the flood problems of San Joaquin County:

(1) The Tuolumne River:
  (a) Cherry River Dam (an authorized project now under construction)
  (b) New Don Pedro Dam (an authorized project)
(2) Merced County stream group: (a) Bear River (an authorized project).

San Joaquin County is interested in and urges the early completion of all of the above projects.

During periods of unusual floods, some of the waters of the Kings River overflow into the San Joaquin River near Fresno and add an additional burden to its already overloaded channel. The completion of the Pine Flat Dam now under construction will correct this situation.

The flood flows of the Merced River enter the San Joaquin River west of the city of Merced and add to the volume of floodwaters to be carried by the lower San Joaquin River.

The sum total of the heavy flood flows of the San Joaquin River and all its tributaries is more than the river can carry within its banks. Floods are inevitable on the lower reaches of the watershed.

The completion of the now authorized projects on the watershed is the solution to our problem.

Floods on the Mokelumne River and its tributaries (Dry Creek and Cosumnes River), in addition to causing heavy damages to valley agricultural lands along their courses, also cause an increase in the height of the flood plane in the delta channels and retard the discharge of the San Joaquin River as it enters the delta.

STORMS AND FLOODS OF NOVEMBER AND DECEMBER 1950

The flood of November and December of 1950 in the Central Valley of California will go down in the records as one of the most unusual in the State's history in that—

1. It occurred early in the winter season when normally we do not expect disastrous floods.
2. It was almost entirely a rainfall flood with rainfall extending from the valley floor to the crest of the Sierra Nevada Mountains, increasing in intensity with elevation.
3. In a period of slightly over 3 weeks, three heavy storms occurred with only short intervals between.
4. Past records of intensity of rainfall were broken in many areas from Mount Whitney on the south to Mount Lassen on the north.
5. Record flood flows were exceeded on a number of streams.

Fortunately, existing flood control, irrigation, and power reservoirs on the San Joaquin River watershed were able to hold back and regulate to a considerable degree the flood discharge of the first flood. During the second and third floods, for the most part they afforded little regulation on account of being full, or nearly so.

THE WINTER OF 1951–52

The entire State of California has had a wet season to date. The rainfall in most all localities is far above the seasonal normal and fast approaching the records of the last season which resulted in the disastrous floods of November and December in the northern part of the State of California. To date we have had no major floods in the Central Valley, however, many destructive floods have occurred in various local areas throughout the State. Southern California in particular has suffered heavily from this season's floodwaters. The snowfall in the Sierra Nevada Mountains, from Mount Whitney to Mount Shasta is unusually heavy and far above normal, ranging from a few feet at lower levels up to 25 feet in the higher altitudes. The heavy snow pack on the Sierras bodes potential disaster to the highly productive agricultural lands along the lower reaches of the Sacramento and San Joaquin Rivers and in their delta. Devastating spring floods from melting snow are in prospect for these areas.

The Governor of the State of California has recognized this potential hazard and has designated Maj. Gen. W. M. Robertson (head of civil defense in California), as the central clearing agency in the event of a major flood disaster.

DAMAGES IN SAN JOAQUIN COUNTY FROM THE 1950 FLOOD ON ALL STREAMS WITHIN THE COUNTY

Following is an estimate of the flood damages caused by all streams in San Joaquin County due to the floods of November and December of 1950:

Field crops	$776,930
Farm homes	315,000
Erosion	312,975
Farm fences, equipment, pumps, etc	151,200
Venice Island	250,000
Sewage plants, diversion dam, fish ladder, gravel pits, gold dredger	181,000
County highways	513,000
State highways	336,000
Public utilities	600,000
Total	3,436,105

The above figures do not include intangible and latent damages which cannot be estimated. Neither do they include sums spent by the United States Army engineers and the State of California on emergency work primarily for the closing of levee breaks. The Chief of Engineers made available $2 million for this work in the Central Valley and the State of California a similar amount.

It would be safe to say that the over-all damages in San Joaquin County alone from the 1950 floods exceeded $5½ million.

DAMAGES FROM THE 1950 FLOOD IN THE SAN JOAQUIN VALLEY BELOW FRESNO

Damages caused by the 1950 floods on the streams listed below as taken from the United States Army engineers' report of March 1951 entitled, "Report on November and December Floods":

1. Calaveras River below Hogan Dam	$252,000
2. Stanislaus River below Melones Dam	1,061,000
3. Tuolumne River below Don Pedro Dam	633,000
4. Lower San Joaquin River below Merced River, including upper delta	4,595,000
5. Merced County stream group	396,000
Subtotal	6,937,000
6. Chowchilla River below Buchanan dam site	357,000
7. Fresno River	179,600
Grand total	7,473,600

If the authorized projects on the first five streams above listed had been completed before this flood, the entire amounts of above-listed damages on said streams would have been prevented.

The floodwaters from the watersheds of all the above listed streams pass through San Joaquin County and contribute to the damage in said county.

STATUS OF PROJECTS FOR WHICH FUNDS ARE BEING REQUESTED

San Joaquin River levees

Location: San Joaquin, Stanislaus, and Merced Counties.

Description: Levee construction on San Joaquin River below mouth of Merced River, along the lower portion of Tuolumne and Stanislaus Rivers and through the upper delta and flowage rights for natural valley storage above the mouth of Merced River.

Federal authorization: Public Law No. 534, Seventh-eighth Congress, second session (H. Doc. No. 2, 78th Cong., 2d sess.).

State authorization: Chapter 1514, Statutes of 1945.

Justification: Protection of more than 100,000 acres of highly developed productive agricultural lands and improvements thereon.

Estimated first cost: $4,134,000.

Funds appropriated to date (planning): Minor.

Funds requested $100,000

Remarks: Funds have been requested on previous occasions for this improvement. Most of the agricultural land flooded was contiguous to this stream.

New Hogan Dam

Location: On Calaveras River 3 miles south of the town of Valley Springs.

Description: An earth-fill dam incorporating the existing dam in the proposed structure, together with three auxiliary related earth-fill dikes. Reservoir capacity 325,000 acre-feet with a maximum flood-control reservation of 133,000 acre-feet.

Federal authorization: Public Law No. 534, Seventy-eighth Congress, second session (H. Doc. No. 545, 78th Cong., 2d sess.).

State authorization: Chapter 1514, Statutes of 1945.

Justification: Additional flood protection for the city of Stockton and farm lands along Calaveras River, Mormon slough and diverting canal, and provision for conservation storage of approximately 190,000 acre-feet.

Estimated first cost (H. Doc. 367, 81st Cong., 1st sess.): $11,264,000.

Funds appropriated to date: No construction funds.

Funds requested: $25,000.

Remarks: Concerning the above project the city of Stockton at its own expense built the present Hogan Dam at a cost of nearly $2,000,000. The present structure affords protection from only normal floods. The damage from a repetition of the 1911 flood on this stream could well be several million dollars, as the area which would be affected is now highly developed and some of it thickly populated. Fortunately, there was no major flood on the watershed during the recent storms.

New Melones Dam

Location: On Stanislaus River, 14 miles above town of Knights Ferry, two-thirds of a mile below present dam.

Description: Concrete arch dam.

Federal authorization: Public Law No. 534, Seventy-eighth Congress, second session. (H. Doc. No. 2).

State authorization: Chapter 1514, Statutes of 1945.

Justification: Protection of highly developed productive agricultural lands in Stanislaus and San Joaquin Counties. Conservation storage and power development.

Estimated first cost (H. Doc. No. 367, 81st Cong., 1st sess.): $38,026,000.

Funds to date: Minor.

Funds requested: $25,000.

Remarks: The floodwaters on this stream do extensive damage along the course of the river itself and contribute heavily to volume of floodwaters of the San Joaquin River and the damages in Stanislaus and San Joaquin Counties resulting therefrom.

FUNDS FOR PRELIMINARY PLANNING, ENGINEERING AND SURVEYING ON PROJECTS AUTHORIZED BY THE HOUSE OF REPRESENTATIVES COMMITTEE ON FLOOD COTROL, FOR STUDY AND REPORT THEREON BY THE UNITED STATES ARMY ENGINEERS

In San Joaquin County there is a project upon which a review report was authorized in July of 1946 by the House Committee on Flood Control and upon which very little work has been done by the United States Army Engineers due to lack of funds. This project involves a study on the Mokelumne River and its tributaries in the interest of flood control and other multiple purposes. The damages from the 1950 flood on the Mokelumne River exceeded $1,000,000.

Local interests request the allocation of ample funds to the Corps of Engineers, United States Army, in order that the Chief of Engineers may have sufficient funds with which to complete this study.

OUR NATIONAL ECONOMY, DEFENSE AND WELFARE

In considering this request for a Federal appropriation for the implementation of the flood-control projects herein set forth, it is the view of local interests that serious consideration must be given to their relationship to our national economy, defense, and welfare. For your consideration we submit the following:

(1) The Central Valley of California is one of the major food-producing areas in the United States. The cash income from all types of agriculture, including dairying and livestock, exceeded $1 billion in 1949.

(2) Damages in excess of $32 million due to the 1950 floods was primarily to agriculture.

(3) Damage to agriculture in San Joaquin County alone exceeded $5 million.

(4) California is a pivotal State in our national and international relations with the Far East and the Orient. Its economy must not be impaired.

(5) The Central Valley of California is the location of many important military establishments.

(6) Two of the largest military supply depots in the United States are located in San Joaquin County, to wit:

(*a*) The Army Sharpe General Supply Depot with three annexes close by, now being enlarged at a cost of over $10 million.

(*b*) The naval supply depot on the Stockton deep-water channel near the port of Stockton.

(7) Ingress and egress by rail, highway, and waterway to and from the above establishments is seriously impaired by major flood disasters.

(8) The main lines of three transcontinental railroads, viz: the Southern Pacific, the Western Pacific, and the Santa Fe, pass through San Joaquin County and the flooded areas. The former was out of service for 10 days during the December 1950 flood.

(9) Two United States highways, viz: U S 50 and U S 99, pass through the flooded areas in San Joaquin County. The former was closed to traffic between Stockton and San Francisco for a period of 30 days in 1950.

(10) Many State and county highways are flooded for prolonged periods.

CONCLUSIONS

In conclusion we submit as follows:

(1) The projects herein enumerated have been authorized by the Congress of the United States.

(2) The State of California will finance all non-Federal costs.

(3) Flood-control works in California have not kept pace with the development of the State.

(4) Their construction should be accelerated at once.

(5) In times of national emergency we should try to continue with our internal improvements as they have a national defense value.

(6) The funds herein requested for the projects set forth are small, but nonetheless are important and will permit the starting of planning work.

(7) In the interests of national, State, and local economy the funds herein requested should be appropriated by Congress.

STATEMENT IN SUPPORT OF AN APPROPRIATION WHICH WILL ALLOW CONSTRUCTION TO PROCEED WITHOUT INTERRUPTION ON THE CHERRY VALLEY PROJECT, TUOLUMNE RIVER, CALIF.

The Turlock irrigation district is located in Stanislaus and Merced Counties in the San Joaquin Valley in California. We supply water to 165,000 acres of diversified crops farmed by 6,500 land owners through a 1,900-mile canal system; we generate and distribute power for domestic use and industry over the area; we maintain and operate a complete and effective drainage system which has controlled the ground water level. Our canals, reservoirs, power plants, transmission lines, substations, pumps, and structures have been financed by bond issues and by direct taxes on our lands. The district was organized in 1887.

We urge a substantial appropriation for the Cherry Valley project which is being built by the city and county of San Francisco, the Modesto Irrigation District, and the Turlock irrigation district under a contract with the United States of America dated August 29, 1949. This contract obligates the districts and the city to operate their existing storage facilities in accordance with rules and regulations prescribed by the Secretary of the Army in order to obtain immediately a degree of control over Tuolumne River floods.

The districts and the city of San Francisco are now in the third year of flood-control operation of their reservoirs under the direction of the Army Engineers. It can be stated here that these operations have been very successful. During the great flood of December 1950 the peak flow of the Tuolumne River was reduced 44 percent by use of the Hetch Hetchy and Don Pedro Reservoir. We expect to control the approaching snow-melt flood.

Our contracts with the Government provides for the completion of the Cherry Valley Reservoir by December 1, 1951. This date has been postponed as a result of inadequate Federal appropriations for the project.

This general plan under which the Government pays only for the flood-control service rendered by the project has great merit and could well serve as a pattern for other cooperative developments. We are now engaged in operating our reservoirs for flood control with considerable risk and expense but with no compensation for services rendered. We will benefit only when Cherry Valley Reservoir is completed and put in operation. It should also be brought out that with the completion of Cherry Valley Reservoir the regulated flow of that stream will make possible a very economical power development of 118,000 horsepower below the dam. There is a great demand for the power at the present time in this part of the State.

A final structure, the New Don Pedro Dam, as provided in the agreement of June 30, 1949, between the districts and the city and county of San Francisco will be started about 1960 and with its completion the Tuolumne River will be completely regulated by 5 reservoirs owned and operated by the Districts and the city and county of San Francisco. This large storage capacity will result in a regulated annual release down the river of about 1,600,000 acre-feet as compared with a dry year natural flow runoff of about 600,000 acre-feet. Flood flow peaks of 100,000 second-feet will be reduced to about 7,000 second-feet. This means a maximum use of the Tuolumne River for domestic water supply, irrigation, flood control and power development.

Under those conditions we feel justified in urging an appropriation of $2,514,100 the sum which is the recommendation of the House Appropirations Subcommittee.

The construction of the Cherry Valley project is under the jurisdiction of the city and county of San Francisco and details of expenditures made to date and to be made are contained in a statement filed separately before the committee by the Public Utilities Commission of the City and County of San Francisco.

ABNER CROWELL,
President, Board of Directors, Turlock Irrigation District, Turlock, Calif.

STATEMENT BY SAN FRANCISCO PUBLIC UTILITIES COMMISSION

This statement is made in support of appropriations pertaining to flood control of the San Joaquin River and its tributaries in California, with particular reference to the Cherry Valley Dam on the Tuolumne River.

The interest of the city of San Francisco in the waters of the Tuolumne River dates back to 1901 at which time certain water rights were granted to it by the State of California on the Tuolumne River, Cherry River, and Eleanor Creek. These rights, together with the extensive rights of the Modesto and Turlock irrigation districts, encompass substantially all of the appropriative water rights on the Tuolumne River above the districts' LaGrange powerhouse.

The use of these waters by the city and the districts is prescribed by an act of Congress known as the Raker Act (or Hetch Hetchy grant) of 1913 and under the requirements of this act and through cooperative agreements between the above-named agencies, the fullest utilization of the River is being made for conservation purposes.

In 1940, the Corps of Engineers proposed the construction of a flood-control dam on the Tuolumne River. Negotiations between the Corps of Engineers and local interests resulted in the program recommended in House Document No. 2 of the Seventy-eighth Congress. This recommendation was accepted by the Congress and became part of Public Law 534, in December of 1944.

The law contemplates the use of existing and proposed reservoirs owned and operated by local interests for flood control as well as for conservation purposes. The flood-control space is to be operated in accordance with rules and regulations prescribed by the Secretary of the Army.

By Contract No. DA-04-167 Eng.-38, certified September 26, 1949, between the United States of America and city and county of San Francisco, Turlock irrigation district, and Modesto irrigation district, the rules and regulations prescribed by the Secretary of the Army were set forth and the monetary value of the flood-control service to be performed, estimated at $12,000,000, was established.

Under the terms of the referenced contract, flood control was to be accomplished in three steps:

1. By December 1, 1949, operate existing facilities, owned by local interests, for flood control. These facilities have a storage capacity of 676,000 acre-feet.

2. By December 1, 1951, revised to December 1, 1954, complete Cherry Valley Reservoir with a capacity of 260,000 acre-feet.

3. By December 1959, complete the new Don Pedro Reservoir with a capacity of 1,200,000 acre-feet.

The above schedules are contingent upon adequate financing, both Federal and local.

Local interests since December 1, 1949, have been operating their facilities in the interest of flood control in accordance with their contract obligations.

The facilities necessary to perform step 2 are now being constructed. Small initial appropriations in 1949 and 1950 have retarded the completion date and added materially to the cost. To date, of the estimated Federal cost of $12,000,000, only $5,020,900 has been appropriated.

This project differs from the others before you in that local interests are providing substantial sums of money to finance the conservation features of the project. All of the money necessary for the construction of the various features of the project in excess of the value of flood-control service, will be furnished by the local interests.

Our contract with the Federal Government provides that city and Federal funds be spent on a pro rata basis of the estimated cost of $13,320,000 (1949 prices) of step 2 of the project. The local interests have all of their necessary funds available for this purpose, and progress on the projects depends on the size of Federal appropriations made.

By separate agreement between the Corps of Engineers and local interests, the benefits for flood control under step 1 have a value of $4,600,000, and the combined steps 1 and 2 have a value of $9,000,000. The remaining $3,000,000 of the $12,000,000 authorized under contract No. DA–04–167–Eng–38, above, is allocated to the construction of the Don Pedro Dam.

All necessary lands and rights of way for the Cherry River project have been acquired at city expense.

All necessary approvals, including the State of California and the Corps of Engineers, for the plans and specifications for Cherry Valley Dam have been secured.

The status of funds expended and to be expended on the Cherry River project to June 3, 1953, is as follows:

Funds expended or committed to date:	
Preliminary surveys and planning	$203,000
Construction in progress (access roads, power line, camp at dam site, diversion tunnel)	2,057,000
Engineering and general expense (including foundation exploration, State fee, and consultants)	425,000
Total	2,685,000
The work under construction is about 40-percent complete.	
Additional funds to be expended or committeed prior to August 1, 1952:	
Dam construction, first stage	$5,380,000
Engineering and general expense	200,000
Total	5,580,000
Plans and specifications for this work are 90-percent complete.	
Additional funds to be expended or committed prior to July 1, 1953:	
Continuation of dam construction	2,751,100
Engineering and general expense	200,000
Total	2,951,100
Total funds expended or committed and to be expended or committed prior to July 1, 1953	11,216,100
Funds required for completion of the above construction program to July 1, 1953:	
Federal funds:	
Appropriated to date	5,020,900
Contract payments to city to date	4,815,000
Appropriation requested	2,514,100
Total	7,329,100
City funds: Bond funds required and available	3,887,000
Total funds required to July 1, 1953	11,216,100

When appearing before the House Appropriations Subcommittee in February of this year, we asked that an appropriation of $2,815,000 be made for the continuation of the work now in progress on this project. The House subcommittee, however, reduced this request to $2,514,100 and we request that your committee consider the recommendation of the House subcommittee as the minimum appropriation for the fiscal year 1952–53.

SAN FRANCISCO PUBLIC UTILITIES COMMISSION,
H. E. LLOYD,
Manager and Chief Engineer, Hetch Hetchy Water Supply, Power and Utilities Engineering Bureau.

STATEMENT OF MILTON L. KIDD ON BEHALF OF MODESTO IRRIGATION DISTRICT

My name is Milton Kidd, I am a director of the Modesto irrigation district, in Modesto, Calif. I present this information in behalf of that organization.

In the interest of saving the time of the committee and of economy to my district which ordinarily has sent me to this committee hearing, I am presenting this written statement and asking that it be considered and placed in the record as though I were before the committee personally. This is in behalf of flood control on the Tuolumne River.

For the purpose of a brief review I wish to state that in 1944, the Seventy-eighth Congress, second session, adopted Public Law No. 534, authorizing flood control upon the lower San Joaquin River and its tributaries, including the Tuolumne River.

Since that time contracts have been entered into between the Corps of Engineers, United States Army, the city and county of San Francisco, the Turlock irrigation district, and the Modesto irrigation district to operate the dams belonging to the local interests for partial flood control and to construct additional units to give complete control of the river. Construction is carried on under the jurisdiction of the city and county of San Francisco and detail expenditure and program is contained in statement to the committee by the Public Utilities Commission of the city of San Francisco.

The irrigation districts, since the signing of this agreement, have been operating their reservoirs for partial flood control in addition to their conservation purposes.

It is needless to repeat the story of the floods of the winter of 1950 and 1951 when 60,000 second-feet of water flowed down to the Tuolumne River inundating thousands of acres of land and forcing people to evacuate their homes. Had the Cherry Valley Dam been completed at that time, this damage could have been materially reduced if not altogether eliminated along the Tuolumne River.

In this past winter of 1951–52, snowfall in our mountain areas has exceeded all previous records, I believe. We are now using present existing dams to the fullest possible extent toward the prevention of floods but in spite of our efforts, we are extremely fearful that floods will inundate valuable property and cause distress to many people even though we will have used fully all existing facilities.

The low initial appropriations made for this project has delayed its completion beyond the anticipated date of 1951 as agreed to by all parties. The city and county have done their part in installing spillway gates on O'Shaunessey Dam and have voted $4,000,000 in bonds as their share of the Cherry Dam. I appeared before the House of Representatives' committee and they have passed a bill authorizing $2,514,000. We appreciate that and hope that the Senate will concur in that action.

I have appeared before this committee in previous years and want to thank you for your past cooperation and consideration which I know you will give to this important matter.

STATEMENT BY THE BOARD OF SUPERVISORS OF THE SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT, SAN BERNARDINO, CALIF.

DEVIL CREEK DIVERSION, EAST TWIN CREEK CHANNEL, WARM CREEK CHANNEL, AND LYTLE CREEK LEVEE UNITS OF THE SANTA ANA RIVER AND TRIBUTARIES, CALIFORNIA PROJECT

The board of supervisors of the San Bernardino County flood-control district in California wishes to respectfully but urgently request appropriation of at least $100,000 in funds for advance planning work on the Devil Creek, East Twin Creek, Warm Creek, and Lytle Creek units of the project known as Santa Ana River and tributaries, California, as reported favorably by the Corps of Engineers in House Document No. 135, Eighty-first Congress, first session. Hearings were had on this project May 16 to June 2, 1949, by the Committee on Public Works of the House of Representatives, Eighty-first Congress, as shown in No. 81–5, pages 695 et seq. The project was authorized by H. R. 5472, Eighty-first Congress, first session.

The project includes four units, two in Riverside County and two in San Bernardino County. They are each important and necessary and should be completed at the earliest possible time.

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However, in our opinion, that one which has for its object the control of Warm Creek Channel, East Twin Creek Channel, Devil Creek diversion, and Lytle Creek levee—all for the protection of the city of San Bernardino, and industries and facilities very definitely of extreme importance in the war effort, from floods reaching the area from the north and east—is of vital and immediate importance.

The seriousness of the flood hazard is caused by the fact that the city of San Bernardino and its environs is located at the foot of a high range of mountains. These mountains rise from valley elevation of from 1,000 to 1,600 feet to an elevation of from 5,000 to 12,000 feet. Because of topographic features, these mountains being approximately parallel with the Pacific Ocean and about 50 miles inland thus constituting a barrier for moisture laden clouds being transported from the ocean toward the desert—the slopes of these mountains are subject to an intense rainfall. Over a 70-year period, the tops of the mountains have averaged about 45 inches of rainfall per year while at the base the average has been about 16 inches per year.

The canyons along the front face of the mountains then carry a great amount of floodwater and debris which debauches upon the settled and improved area on the valley floor. These floods cause great damage to valuable agricultural areas, to residential, business and industrial properties, to railroad and highway facilities, to essential irrigation and domestic water supply systems, to public utilities including transcontinental communication cables, oil and gas mains and electrical transmission lines, together with all facilities available to a very rapdly developing industrial, business and residential area.

Certain of these communication facilities and gas and electrical installations are transcontinental in scope and are absolutely essential to the industrial economy of the Los Angeles metropolitan area.

Norton Air Base, which was extensively used as a vital unit through World War II, is rapidly expanding and is assuming a very important role in the present national emergency effort. This base, together with railroad and highway connections, could be seriously damaged by floods escaping from these channels.

Since the survey and report by the Corps of Engineers, large installations housing a National Guard armory, a Naval Reserve training center and many light industrial enterprises have been established within the limits affected by these floods.

The flood problem north of the city of San Bernardino is typical of the problem in the entire southern California area where the valley floor has as its perimiter a high mountainous terrain. The slopes in the upper ranges of the tributaries are very steep and the flow of flash floods passes quickly and causes tremendous damage from inundation.

The overflow area of Devil, Waterman, and East Twin Creeks from the base of the San Bernardino Mountains to the overflow area of Warm Creek and the overflow area of Warm Creek to the junction of East Branch of Lytle Creek is estimated at 10,300 acres. At present Devil Canyon discharges upon a steep debris cone extending 1½ miles out into the valley north of San Bernardino with a dispersion angle of 60 degrees. A gently sloping plain 1 mile in width extends southeasterly to the easternmost point of the Shandin Hills (Little Mountain).

All drainage from Devil Canyon now, upon rounding this hill, discharges uncontrolled upon the north end residential area and business district between Sierra Way and I Streets.

This area comprises the major portion of population and assessed valuations. The downstream channels have been obliterated by streets, business and residential developments.

The proposed project plans to divert Devil Creek flood flows to Cajon Creek. This would be accomplished by constructing an intercepting levee extending westerly across the existing channel of Devil Creek about 1¼ miles below the apex of the cone (and below the present spreading grounds) to the low range of hills along Kendall Drive, and a concrete channel southwesterly to Cajon Creek within the limits of the Lytle-Cajon Creek Army project.

It has been recognized that this Lytle-Cajon Creek project now completed by the United States Engineer Department was designed as an emergency war necessity. It without doubt provides adequate protection for the westerly portion of the city of San Bernardino and for the railroads, highways, and other facilities which were in jeopardy during the recent war.

It has likewise been recognized that certain areas within the project containing water wells for municipal and domestic use and for supply to large agri-

cultural districts of high value are still subject to appreciable damage from floods. The concrete channel from Devil Canyon as proposed would conduct additional floodwater into this territory. These conditions were considered by the Board of Engineers for Rivers and Harbors when this Santa Ana River report was being reviewed and that body in its report to the Chief of Engineers recommended that an additional levee be built upstream from the "island levee", which is along the right side of Lytle Creek just downstream from the confluence of Lytle and Cajon Creeks, for the protection of the very valuable wells in that location. It is strongly urged that this levee be constructed.

The mouth of Waterman Canyon is located about 4 miles northeast of the central business district of San Bernardino. One-fourth mile to the southeast is the canyon mouth of East Twin Creek. By successive deposition of debris, floodwaters from these two canyons have built a cone extending 4 miles in length to Warm Creek on the south and 3½ miles in width from I Street on the west to Sterling Avenue on the east. The cone is typical of all steep alluvial fans, being a wide angle cone upon which unrestrained floodwaters are at liberty to occupy any position through an angle of 90 degrees for a distance of 2½ miles below the apex. Its apex is forming at the mouth of Waterman Canyon at an elevation of 1,000 feet. The major axis (crown) of the cone extends southwesterly 2 miles toward the most highly developed business and residential district of San Bernardino and facilities heretofore mentioned, then assumes a southerly direction along Waterman Avenue.

From the apex the present course of Waterman Creek continues southwesterly on the crown for 0.2 mile, then swings to the left, assuming a southeasterly course and at a point 0.8 mile from the apex joins present East Twin Creek Wash.

The slope of the present Waterman Creek stream bed from the apex (elevation 1,600 feet) for the distance of 0.8 mile to its junction with East Twin Creek (elevation 1,385) is 215 feet (270 feet per mile) as compared to the slope of the major axis from the apex (elevation 1,000 feet) southwest toward San Bernardino for an equal distance of 0.8 mile to a point (elevation 1,355 feet) which is 245 feet or 306 feet per mile.

A comparison of the two gradients augmented by the curve in the stream bed indicates that there is no inducement for the present course to remain permanently stable. It is easily possible that the entire flow could abandon the present course and ride the crest of the cone for miles through entirely new territory.

The Santa Ana River report recommends a plan to revet earth-filled levees constructed by local interests to collect flows from Waterman and East Twin Creeks and to construct a concrete channel along East Twin Creek from the end of those levees to and crossing Warm Creek and thence southwesterly to a point near Warm Creek south of San Bernardino.

The San Bernardino County flood-control district engineering department has examined the proposed improvements and recommends them as adequate for the purpose.

[Date: Mar. 2, 1938, 4 p. m.]

Watershed data	Unit of quantity	Devil Canyon	Waterman	East Twin
Maximum discharge 1919-49	Cubic feet per second.	3,320	2,350	3,360
Mountain drainage area	Square miles	6.3	4.55	8.6
Minimum altitude	Feet	1,800	1,600	1,650
Maximum altitude	do	5,350	5,400	6,150
Average altitude	do	3,560	3,620	3,520
Average slope	Percent	42	50	47
Length main stream channel	Miles	4.5	4.5	4.8
Average slope stream channel	Percent	13	14	18
Rainfall, March 1938 storm total:				
Base of mountain	Inches	12	12	12
Mountain crest	do	24	24	26
73-year mean-base of mountain	do	25	23	23
73-year mean-mountain crest	do	40	40	45

Excessive precipitation recorded at Squirrel In, elevation 5,300 feet (in East Twin Creek watershed)

Storm	Maximum 24 hours		Maximum 48 hours		Storm total
	Inches	Date	Inches	Date	
Jan. 14–20, 1916	16.81	17th	22.61	17th–18th	27.77
Feb. 27 to Mar. 4, 1938	10.97	2d	15.67	2d–3d	26.17
Jan. 21–24, 1943	10.40	23d	16.85	22d–23d	17.95

Warm Creek below East Twin Creek confluence, peak discharges 1884 to 1949

	Estimated peak discharge (cubic feet per second)	Date
Flood No.:		
1	6,700	Mar. 2, 1938
2	6,400	Feb. 23, 1891
3	4,700	Jan. 18, 1916
4	3,600	Mar. 6, 1884
5	2,900	Feb. 17, 1884
6	2,300	Feb. 21, 1914
7	2,100	Jan. 23, 1943

The areas which are exposed to flood hazard from these various streams are probably developing as fast as any in the entire Nation, not only for civilian use, but also for military operations. We know that the threat from flood is extremely serious. Therefore, our very sincere request is that this committee give full consideration to the recommendations contained in the report on survey of Santa Ana River and tributaries, California, to the end that an appropriation may be made this year so that the project may be constructed in an orderly fashion and its completion accomplished at an early date.

SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT,
San Bernardino, Calif., February 15, 1952.

The board of supervisors of the San Bernardino County flood-control district hereby expresses the appreciation of the people of the county and of the State of California for the fine interest and accomplishments made by the various committees and by the Congress of the United States as regards the San Antonio Dam and channel projects.

These projects were authorized by the Seventy-fifth Congress, third session, Document No. 688 (Flood Control Act approved June 22, 1936, and as amended August 28, 1937), and subsequently the sums of $500,000 and $1,000,000 were appropriated to begin construction of the dam.

Realizing that there have been changes in the membership of congressional committees, and to emphasize the urgent need for further appropriations in order that an orderly construction program may continue, the statement attached is hereby submitted.

We call to your attention the fact that this project has received Presidential approval as a war emergency measure.

It is the sincere hope of this board that approval will be given for an appropriation of at least $3,000,000 that a contract may be let and construction work on the dam proceed during the ensuing year, and an appropriation of $50,000 for advance planning on the San Antonio channel.

BOARD OF SUPERVISORS, SAN BERNARDINO
COUNTY FLOOD CONTROL DISTRICT,
San Bernardino, Calif.

A STATEMENT BY THE BOARD OF SUPERVISORS OF THE SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT, SAN BERNARDINO COUNTY, CALIF.

SAN ANTONIO DAM AND CHANNEL PROJECT

The board of supervisors of the San Bernardino County flood-control district, which is a county-wide district organized under the provisions of chapter 929, statutes of 1945, a special act of the Legislature of the State of California, urges that additional money be made available for the continued construction of the San Antonio Dam and flood-control project, which project has been authorized, and which is the subject of reports heretofore presented to Congress by the Corps of Engineers.

Those reports are favorable to the project and set out in considerable detail its necessity, its economic justification, and the urgency of the work which is proposed. They are available and familiar to you, so detailed repetition by us is thought not to be necessary.

We do, however, wish to emphasize certain matters, and to call your attention to ones possibly not directly dealt upon in other reports.

The mountain drainage area tributary to the proposed dam is about 27 square miles. That area, because of topographic features and relation to desert and ocean influences, is subject to intense rainfalls and cloudbursts. The average yearly rainfall varies from about 22 inches at the dam to 40 or 50 in higher regions. During storms of great intensity rainfalls of as much as 16 inches to 18 inches per 24 hours have been recorded.

USGS Water Supply Paper 847, at page 261, shows San Antonio Creek as producing the highest runoff rate per square mile of all United States of America streams listed in said table.

The elevations within the watershed vary from approximately 2,100 feet at the dam to as much as 10,000 feet, and San Antonio Canyon itself has a fall of between 700 and 800 feet per mile. This canyon empties upon a large, unstable fan-shaped debris cone of rather recent origin, and the stream as it leaves the canyon mouth can, under present conditions, range through an angle of more than 90°.

The stream at floodtime with a comparatively small changing of conditions can leave its poorly defined channel bed and continue in any direction over this 90° width. The slope of the cone is from 3 to 6 percent.

Almost unlimited amounts of detritus are in the great moraine like moving rock and gravel slides in the upper canyon reaches.

It is this combination of steep slopes, intense rainfall and runoff and unlimited masses of loose material being transported onto this unstable debris cone that made the situation so menacing and dangerous.

There are six cities and several smaller communities, together with a closely built-up urban development of homes and citrus orchards immediately within the easily possible course of this rock- and gravel-laden stream. Three transcontinental railroads, an interurban electric line, three interstate, cross-country State highways and innumerable county highways and city streets cross and traverse this threatened area.

As is true in all of southern California, settlement and development have been rapid in this vicinity during the past several years. This location is about midway between the cities of Los Angeles and San Bernardino and about 25 miles from each. Within a very few years this entire distance will be closely built up and densely inhabited. The cities immediately involved are Upland, Ontario, Chino, Claremont, Pomona, and La Verne.

The increase in assessed valuation of a part of the area in San Bernardino County is as follows:

Assessed valuation

	1938-39	1949-50	1950-51
Ontario City	$8,776,220	$16,785,010	$17,950,010
Upland City	5,248,280	8,221,990	8,286,430
Chino City	1,612,470	4,598,920	4,641,110
Ontario outside (west of Euclid Avenue)	1,555,100	2,369,010	3,785,340
Upland outside (west of Euclid Avenue)	469,287	806,439	----------
Chino outside (west of Euclid Avenue)	1,249,550	2,373,000	----------

The water from the San Antonio watershed is that which is largely necessary for the support of these cities and for the support of extremely valuable citrus districts, and also for the replenishment of several underground basins from which much of the water supply of the area is obtained. The overdraft in that portion of the Chino underground basin dependent upon San Antonio Creek is now from four to five thousand acre-feet per year.

Several hundred thousand dollars of local money have been spent in the construction of conservation works and spreading grounds, but the saving of water in time of large floods is feasible only by detention storage and debris removal, both of which the proposed dam will provide in satisfactory form.

Damaging floods have occurred on this stream in the years 1906, 1909, 1914, 1916, 1922, 1927, 1938, and 1943. Certain statistical data taken from one of the preliminary examinations reports having to do with damage from these floods is attached hereto.

We honestly and sincerely believe that a very serious flood hazard exists below the canyon portion of San Antonio Creek, and that the situation is so critical that every possible effort that can be made to the end that the stream be controlled and confined by regulation and channel improvement will be justified.

Population statistics

	1940	1950
San Bernardino County (increase 80 percent)	161,108	[1] 289,800
Ontario	16,044	25,594
Upland	7,118	10,174
Chino	7,483	8,654
West End Area: Pomona, Claremont, Chino, Ontario, Upland	95,655	150,000

[1] Estimate by California Taxpayers' Association.

San Bernardino County has experienced one of the largest increases of population in the State and Nation.

Population increases from 1940 to 1950:	*Percent*
State of California	43
Los Angeles County	34
Orange County	32
Riverside County	31
San Bernardino County	80

(Estimates based on calculations by the California Taxpayers' Association, the San Bernardino County Election Department, and the San Bernardino County Chamber of Commerce.)

SAN ANTONIO CREEK—DAMAGES FROM FLOODS

(From Statistical Data in Preliminary Examination Report on Santa Ana River and Tributaries, dated February 15, 1939.)

Description of flood, flood year 1913–14 (p. 41)

In Ontario, Euclid Avenue was a raging torrent, and side streets were full from curb to curb. West F Street was badly washed at Laurel Avenue; San Antonio Avenue also suffered, as did Vine Avenue. Most of the streets sustained minor damages. At A Street storm waters were turned into the new catch basins and into the old storm drain, relieving the flood at A Street and Euclid Avenue (January 26, 1914). On Fourth Street, the new bridge stood, but there was room for six bridges east of it. The Eighth Street bridge went out (January 27, 1914). On East Ninth Street, Ontario, water 6 feet deep and 60 feet wide came from north of the Pacific Electric Railway tracks onto a tract of land owned by A. P. Moreman. The water went on through Ninth Street and over lots belonging to Aaron Brest, then south to the Atchison, Topeka & Santa Fe Railway, flooding homes south of Ninth Street. (Above was local runoff, not San Antonio Creek.)

On Euclid Avenue, at Twenty-second and Twenty-third Avenues, great damage was done to groves. The wall was washed away north of the Paul groves, and water came down into the orchards. The Ninth Street road was washed out, as it had been in January (February 19, 1914). On the east side of Euclid Avenue water tore a gulch in a barley field above Twenty-fourth Street, out through the

Paine grove to the Stewart grove, and flooded that entire section (February 27, 1914) (local runoff).

Upland experienced its greatest rain. Every avenue running north and south was filled from curb to curb. In every section water tore through stone walls and ditches and washed orange groves. The Upland downtown district suffered little damage, but in the northern part of the city groves from Twenty-fourth Street south on the west side of Euclid Avenue were badly washed (local runoff).

The city of Ontario was isolated; all connecting roads were washed out in many places. The Southern Pacific Railroad lost sections of track at Etiwanda. East of Etiwanda floodwaters cut off Ontario from Colton, Riverside, and San Bernardino near the plant of the Southern California Canning Co. on East State Street. Between Upland and San Bernardino the tracks were soft, and all trains were annulled. The new line of the Pacific Electric Railway to San Bernardino was washed out in several places. Floodwater went through recently completed fills, leaving rails and ties dangling high. The auto road also suffered. Foothill and Valley Boulevards were a mass of ravines and gullies in spots where the water concentrated in flood strength (local runoff).

About 150 feet of flume washed out in the San Antonio Canyon, and the local (Ontario) water supply became muddy. San Antonio Creek was a raging torrent that swept everything before it. Its floodwaters reached to the Chino foothills. It was estimated that the stream flowed 140,000 miners' inches most of the night of January 26. In the hills back of Stoddard's Canyon the rainfall was great, adding to the flood in San Antonio Canyon. San Antonio Creek tore out the Tenth Street bridge and the Southern Pacific Railroad bridge south of A Street, 9 miles from the mouth of the canyon (January 27, 1914).

In the Ontario-Upland area, rainfall for the season totaled 22.47 inches. In the northern part of Ontario groves from Twenty-fourth Street south on the west side of Euclid Avenue were badly washed. A cloudburst in San Antonio Canyon was the principal cause, and, as usual in cases of this sort, a California River found a new river bed, with damage to orange groves and valuable property gutted by the stream (January 29, 1914).

Flood year, 1916 (p. 48)

San Antonio Creek has become a river, washing out its bridges (January 17, 1916). Damage in Pomona district was estimated at $500,000. More than 200 passengers were held up on east-bound trains at Pomona. Twenty-five tourists were marooned at Camp Baldy where rain came down at the rate of 1 inch per hour, sending destructive floods to the valley lands below. A portion of the new State highway was washed out in the Pomona district. At Claremont dynamite was used to divert floodwaters into the old channel of San Antonio wash to save Pomona College buildings from destruction. A number of orange groves were damaged by the flood, and ranch houses stood in 3 feet of water (January 18, 1916). The cloudburst caused waters to sweep out of San Antonio wash and cut across the country to the Claremont School for Boys, which was surrounded.

Flood year, 1921–22 (p. 50)

San Antonio Canyon was wrecked. Water came from the canyon down San Antonio Avenue, damaging streets and washing groves badly. The Eleventh Street Bridge was washed out and wash-outs of the Pacific Electric Railway and the Atchison, Topeka & Santa Fe Railway kept those railways out of operation (February 26, 1922).

Flood year, 1926–27 (p. 52)

In San Anfonio Canyon a heavy rain had fallen for 48 hours, and the creek rose rapidly at Ice House Canyon. Kelley's Camp was buried in 10 feet of snow, and it was expected that the rain would melt the heavy snows and augment the flood in San Antonio Creek (February 15, 1927).

Flood year, 1937–38 (p. 55)

According to the United States Weather Bureau, the storm of February 27–March 3, 1938 originated in the north Pacific Ocean west of Alaska, February 24, 1938, and traveled southeasterly following the coast of Canada and the United States, reaching its greatest intensity in southwestern United States in southern California, southern Arizona, and southwestern New Mexico.

In southern California, the precipitation occurred during the period February 27–March 3, 1938, and reached its highest intensity during the 7-hour period

from 3 a. m. to 10 a. m. on March 2. During the period, 3.8 inches of rain were recorded in Los Angeles, or at an average rate of 0.54 inches for the 7 hours. In the mountain areas, a greater rainfall intensity occurred during about the same 7-hour period, and this caused maximum flood crests in the streams of southern California.

The storm caused great damage in southern California, southern Nevada, and parts of Arizona. A large number of homes were completely destroyed or badly damaged. Railroads and highways suffered damage estimated at many millions of dollars, due to the destruction of bridges and roadbeds. Other facilities, such as telegraph, telephone, gas, and water were severely damaged. For a time, all lines of communciation were cut off from some localities, except those served by airplanes and by radio. In the Los Angeles engineer district, the loss of life from the storm is estimated at 87 and in addition 9 persons were reported missing 3 months after the flood.

CITY OF SANTA BARBARA, CALIF.,
May 6, 1952.

Subject: Dredging—Santa Barbara Harbor

Hon. WILLIAM F. KNOWLAND,
United States Senator,
Senate Office Building, Washington, D. C.

DEAR SENATOR KNOWLAND: I am enclosing a statement regarding the need for dredging in Santa Barbara Harbor, together with copy of letter from the Southern Pacific Co., under date of February 29, 1952, addressed to Congressman Ernest K. Bramblett, calling attention to the fact that abandonment of the dredging program in Santa Barbara is likely to seriously impair the railroad line between Santa Barbara and Los Angeles. This railroad, as you know, is one of the Southern Pacific's main lines in southern California, and is very important in serving Port Hueneme. Port Hueneme is the place from which a large portion of the supplies for Korea are dispatched.

I am also enclosing two sets of pictures showing the condition of the harbor and beaches in February 1952. These pictures were taken between Santa Barbara and Ortega Hill, a distance of approximately 7 miles southeasterly from Santa Barbara. The beaches have, of course, deteriorated since the pictures were taken.

I know that you are doing everything possible to obtain an appropriation for the dredging of Santa Barbara's harbor, and I hope that the enclosed information will be of service in your efforts on our behalf.

Sincerely yours,

NORRIS MONTGOMERY, *Mayor.*

A STATEMENT ON SANTA BARBARA, CALIF., HARBOR MAINTENANCE DREDGING, BY THE CITY AND COUNTY OF SANTA BARBARA, CALIF.

The Santa Barbara Harbor is formed by an L-shaped breakwater constructed by local interests in 1929. This breakwater interrupts the heavy easterly flow of sand along the beach causing it to be deposited at the seaward end of the breakwater which creates a serious shoaling problem, and in the event the sand is not removed, will actually close the harbor to navigation. At the same time, the down-coast beaches are deprived of the shoal sand upon which they depend for maintenance. In the past this beach erosion has caused millions of dollars' worth of damage.

The beach erosion board of the Corps of Engineers made a cooperative study of this problem and recommended that biennial maintenance dredging be established by the United States Government, and that local interests pay the cost of placing the dredged material on the beaches for their restoration and preservation. Under provisions of the River and Harbor Act of 1935, Congress adopted this project and provided that $30,000 annually be allotted for the purpose. The cost of placing the dredged material was estimated at $25,000 annually to be paid by local interests.

Under this agreement dredging has taken place in 1938, 1940, 1942, 1947, and 1949. Last year the Corps of Engineers postponed the dredging for 1 year

because of the war emergency. The harbor shoaling was not at that time severe enough to be serious.

This year, however, when local interests offered their share of the dredging fund, the Army engineers indicated again that no funds were available. This year the shoaling is extremely serious and will continue to grow worse, not only threatening the small boat harbor, but the Coast Guard and Naval Reserve operations and the entire commercial fishing industry. In addition, beach erosion is already evident, threatening 13 miles of beach and upland development, as well as the coast route of the Southern Pacific Railroad. (See letter attached from Southern Pacific. Also see photographs attached showing harbor shoaling and beach erosion.)

Due to the long period of time that this operation has continued because of congressional authorization, it is a matter of extreme concern here to have the dredging fund suddenly withdrawn with no opportunity to make other arrangements. Local interests sent representatives to Washington to discuss the matter with Army engineers, who reported that the curtailment was in the interests of national policy, and that the local interests have not taken action on the advance maintenance dredging program authorized by Congress in 1945. The facts are, however, that the important fishing industry here is threatened, which provides food for this area, and that local interests in May 1950 submitted a project for review by the Army engineers to comply with the act of 1945. No action by the engineers was possible since, because of the defense situation.

The city and county of Santa Barbara, the agencies who have supplied the matching funds for the Federal dredging project, request the Senate Appropriation Committee to make sufficient funds available to dredge the harbor this year.

At the present time, so far as we can estimate, 1,250,000 cubic yards of sand need dredging, which may cost in the neighborhood of $320,000 a dredge. Local interests are obligated to contribute $100,000, which indicates a requirement of $220,000 more or less from the Federal Government.

If the dredging is not done this year, the harbor may become unusable by next year. Eventually, if the harbor is not dredged, tax losses to the city and county on the harbor alone will be about $150,000 annually. Boat business will have to move elsewhere, showing a business loss estimated at $225,000 annually. And the fishing industry likewise would be threatened with removal. This year the fishing industry is estimated at $1,000,000. Beach erosion will cause additional damage, which in all its aspects is estimated at $1,850,000. Total potential damage, $3,325,000 annually.

Because of the public demand on behalf of this project, to prevent these exceptionally high losses and interference with Coast Guard and naval installations, fishing industry, transportation, and other factors, the city and county of Santa Barbara earnestly urge your favorable action on this appropriation to the Army engineers.

For the city of Santa Barbara:

NORRIS MUGTRUY,
Mayor.
JOSEPH J. CALLAHAN,
Councilman, Beach and Harbor Committee.

For the county of Santa Barbara:

B. B. MCCLELLAR,
Chairman, Board of Supervisors.
C. W. BRADBURY,
Supervisor, First District.

Hon. ERNEST K. BRAMBLETT,
Congressman, Eleventh District, House of Representatives,
Washington, D. C.

DEAR MR. BRAMBLETT: It has come to our attention that city of Santa Barbara is requesting Federal Government appropriation necessary to pump sand from Santa Barbara Harbor to the beaches east of the breakwater to protect beaches within the city, as well as beaches and beach property along the shore line east of the city.

Southern Pacific Co. recommends that this work be done and sincerely solicits your aid toward having necessary Federal funds made available for the purpose.

Our interest in the matter stems primarily from a desire to protect our railroad against possible serious damage, which experience has demonstrated is not only

possible but quite probable unless the sand is restored to the beaches. After construction of the Santa Barbara breakwater, the current along the coast was so changed that the sand beaches began to erode with result that at one point some 8½ miles east of Santa Barbara, the beach line eroded so seriously that there was danger of erosion cutting through our main line, requiring the expenditure of a large sum of money for hauling in and placing riprap for protection. After the work was started of repumping sand from the harbor and depositing it along the beaches east of Santa Barbara, the eroding of the shore line and sand beaches was greatly retarded and in some instances the sand began to build back on the beaches, demonstrating the effectiveness of work which the city is requesting be done.

Southern Pacific Co.-Pacific lines comprise more than 8,000 miles of railroad extending from San Francisco, Calif., northerly to Portland, Oreg., and easterly across north-central California and Nevada to Ogden, Utah, and from San Francisco southwesterly by two routes to Los Angeles, thence across southern California, Arizona, and New Mexico to El Paso, Tex., and Tucumcari, N. Mex. These lines connect with lines of other interstate railroad carriers, and thus enter into and become part of through routes for transportation of freight and passenger between all parts of the United States. Such lines are necessary in the interest of national defense in transporting present and prospective military requirements, transportation needs of industry engaged in national defense activities, as well as transportation needs of civilian economy.

We consider that our main line railroad immediately south of Santa Barbara, and which forms a part of the through route between San Francisco and Los Angeles and the East, is likely to be seriously affected by erosion as it was previously after construction of the Santa Barbara breakwater, unless work of restoring sand to the beaches is undertaken.

Your assistance will be much appreciated.

Very truly yours,

J. W. CORBETT.

Mr. LEEDOM. That is all.

Chairman MCKELLAR. Are there any questions? It not, we are very much obliged to you.

Mr. LEEDOM. Thank you, Mr. Chairman.

Mr. GRIFFITH. Mr. Chairman, that completes our case, and we thank you for your courtesy.

Senator KNOWLAND. Mr. Chairman, we have Mr. Stone, who desires to make a statement.

Chairman MCKELLAR. Very well.

STATEMENT OF W. G. STONE, PORT DIRECTOR AND GENERAL MANAGER, SACRAMENTO-YOLO PORT DISTRICT, SACRAMENTO, CALIF.

SACRAMENTO RIVER SHIP CHANNEL PROJECT

Mr. STONE. Mr. Chairman and members of the committee, I have prepared a brief statement with respect to the Sacramento River deep river channel project, copies of which have been supplied the committee and the reporter.

(The statement referred to follows:)

SACRAMENTO RIVER SHIP CHANNEL PROJECT—STATEMENT OF W. G. STONE, PORT DIRECTOR, SACRAMENTO-YOLO PORT DISTRICT, SACRAMENTO, CALIF.

My name is W. G. Stone. I am port director and general manager of the Sacramento-Yolo port district, Sacramento, Calif. This port district is a political subdivision of the State of California consisting of the whole of Sacramento County and supervisorial district No. 1 in Yolo County. The port district was created to provide the medium for local participation and for the further purpose of construction and operation of adequate deep-water terminal facilities.

The Sacramento ship channel is 15 miles shorter than the present Sacramento

River route. It utilizes a portion of the Sacramento River and also a number of connecting sloughs, waterways, and various channels. All sharp curves are eliminated and the channel terminates in Lake Washington, a natural lake 1½ miles west of the city of Sacramento. The project includes a shallow draft connecting barge canal between the deep water turning basin in Lake Washington and the river proper in order that shallow draft barges and vessels using the Sacramento River can have access to the deep water turning basin.

The project was authorized by Congress July 24, 1946, Public Law 525, Seventy-ninth Congress, second session, chapter 595. It calls for a channel 30 feet in depth at low tide and with 200 feet bottom width except on the few curves in the channel where the bottom width will be 300 feet. Rights-of-way are provided and levees will be constructed so that the channel can be widened an additional 100 feet or deepened in accordance with the needs of commerce in the future.

The project was approved by the State of California, chapter 1152, 1947 statutes and the State of California appropriated $750,000 to the Sacramento-Yolo port district for right-of-way purposes. The port district on November 4, 1947, voted bonds $3,750,000 for local participation. This makes a total of local participation of $4,500,000 presently authorized and available.

The port district furnished the Secretary of the Army with an agreement of assurance December 24, 1947, and the Secretary of the Army accepted this agreement February 3, 1948. The port district proceeded immediately with construction plans and purchase of rights-of-way.

URGENCY OF PROJECT

The deep-water channel project is so extremely urgent that the port district commission advanced $500,000 of port district bond money to the Federal Government as a definite aid in starting and speeding up the construction program due to lack of a sufficient amount of Federal funds available at that time.

The Secretary of the Army on September 18, 1948, agreed to accept this advance or loan to the Federal Government. This acceptance, we believe, conclusively indicates the extreme urgency of this particular Sacramento River project. It is even more urgent at this time than in 1948, as will be shown later.

The Federal Government has made four annual appropriations for construction; namely, 1948, $60,758.12; 1949, $275,000; 1950, $1,700,000; 1951, $263,000; total, $2,298,758.12.

Pursuant to agreement with the Federal Government, the port district proceeded to purchase about 1,400 acres for rights-of-way, said purchase being made in advance of the construction timetable of the district Corps of Engineers. Ground was broken for construction August 7, 1949. The first construction contract was for building of levees around the Lake Washington turning basin, along the barge canal and the upper 2 miles of the deep-water channel.

The second construction contract provided for construction of new levees and dredging, straightening and deepening of Cache Slough for a distance of about 4½ miles just immediately north of Rio Vista. This work was completed late in 1951.

The Dredging Contractors Association of California advised me that 20 first-class hydraulic suction dredgers in California are idle at the present time. There are 15 large dredgers with discharge pipes ranging from 16 to 30 inches in diameter and five smaller ones. There are two 30-inch, two 27-inch, four 24-inch, and so on down the line. The dredging association advised that five of these dredgers 24-inch and larger could easily move 70 million yards of material in 2 years' time and this equipment could be placed upon the dredging site immediately upon execution of the contract.

The Sacramento Northern Railway between Sacramento and Oakland, Calif., crosses the route of the channel near Lisbon at the present time and has a 90-foot steel-beam lift span which could be lifted to premit dredgers to pass through in doing dredging work. Incidentally, this railway is out of operation due to the collapse of its wooden trestle across the Yolo bypass, a short distance west of this lift span. The lift span could therefore be set to one side and the dredger pass on up to the point where it would cut through the bypass levee and come on over to the turning basin in Lake Washington. It will probably be a year or 1½ years before the Sacramento Northern can use its line to Oakland as it will be necessary to rebuild about 3 miles of trestle. The present, therefore, is an opportune time to do the dredging between this lift span and the harbor or turning basin in Lake Washington. In fact, the Federal Government by making

an adequate appropriation for a continuing dredging contract at the present time can materially reduce the per yard cost of dredging by having it done with one general contract, one supervision, one inspection, etc., and avoid extra expense in passing the dredgers through the railroad right-of-way. The port district is arranging for relocation of the Sacramento Northern around our turning basin area but this can only be done after the Federal Government completes its dredging program. You can readily see the importance, therefore, of doing the dredging at this particular time.

The port district constructed a 500,000-bushel-capacity bulk-storage grain elevator during the latter part of 1949 and early 1950, placing it in operation May 15, 1950. The port district has constructed 4 miles of belt railroad connecting with the Southern Pacific and Western Pacific railroad systems. One mile of port district highway has been completed, making it possible to use the grain elevator by highway and by rail pending the time that the deep water channel project and the connecting barge canal is completed.

A pressing need exists for additional warehouse space at Sacramento for storage of canned fruits and vegetables after processing and prior to shipment. The port district contemplates building a series of storage warehouses for this purpose but is prevented from doing so due to the fact that it is necessary to use the warehouse area for spoil-disposal purposes at the time the harbor and upper portions of the deep water channel is dredged. Delay in dredging by the Federal Government delays construction of these sorely needed warehouses.

Another point that indicates the dire need and great urgency for immediate construction is a recent loss to Sacramento of intercoastal terminal rates. When this project was authorized in 1946, west-bound intercoastal carriers from the Atlantic coast provided only a limited service in the parity of freight rates with other Pacific coast ports. East-bound tariffs of all of the general cargo intercoastal carriers provided terminal rates from Sacramento to New York City and other Atlantic coast ports by transshipment in connection with river carriers by issuing a through bill of lading from Sacramento. During the past year all of the west-bound carriers canceled Sacramento terminal rates and on December 7, 1951, all seven east-bound intercoastal carriers issued a tariff canceling Sacramento terminal rates. The Interstate Commerce Commission has suspended this latter tariff and it is now in litigation. Cancellation of the west-bound terminal rates makes it most difficult for Eastern manufacturers of machinery, hardware, textiles, and in fact all commodities generally produced in the large manufacturing centers in the East and shipped to the west coast, to deliver their merchandise in Sacramento for distribution to the tributary trade area between several hundred wholesale distributors located at Sacrameno. It also makes it more difficult for those distributors to meet their competition.

If the east-bound tariff should not be permanently suspended, it means that the Atlantic coast purchasers of California canned fruits and vegetables, dried fruit, and a wide variety of agricultural products will have to pay more for them.

One of the controlling reasons for advocating construction of the Sacramento deep-water channel project was to permanently cure this continually recurring freight-rate litigation which has been pending actively since 1932; a period of 20 years. Sacramento has never had terminal rates to or from ports on the Gulf of Mexico or to any off-shore ports. This has made it more difficult for people in the Southern States to secure our California fruits and vegetables, dried fruit, etc. It has also virtually kept our industries from serving the Gulf ports and it has precluded purchase of materials from the Southern States by our wholesale distributors in any substantial volume.

NATIONAL DEFENSE BENEFITS

For 20 miles downstream below the deep-water turning basin the channel is paralleled by a California State highway and by a branch line of the Sacramento Northern Railway. This makes an ideal inland location for any type of military installation, for national-defense plants, or for large industrial plants.

This fact was recognized by the Defense Production Administration when on March 5, 1952, it granted a certificate of necessity to the Yolo Steel & Metal Co. to construct a steel mill on a site located along the deep-water channel project. Several sites are now under option at various locations below the turning basin and within the next 30 days or so a site of approximately 1,700 acres will be purchased and construction started. This steel mill expects to have a private wharf and dockage facilities over 1 mile in length on the channel

and have it ready for use within the next 2 years. Pig iron is one of the most critically needed materials and this plant will produce 250,000 tons or more of pig iron annually. The Yolo Steel & Metal Co. also contemplates doing a tremendous export business and will also bring in some materials by deep-water vessels. It is most essential, therefore, from a national defense aspect, that the deep-water channel project be completed as quickly as possible.

In addition, the McClellan Air Base is located at North Sacramento and has its own private wharf on the Sacramento River waterfront. The Sacramento Signal Depot is located on the outskirts of Sacramento. Mather Field is located about 12 miles east of Sacramento. These three military installations can use the deep-water channel facilities extensively.

The harbor and turning basin has a lineal measurement around the turning basin of about 6 miles. This entire area can be easily served by the port district belt railroad with direct connection to the Southern Pacific and Western Pacific railroad systems. This makes an ideal inland location for the loading of troops and war materials without passing through any congested area in event of any immediate need in connection with national defense.

The Sacramento deep-water channel project should be speeded up immediately. Dredgers are available and can be quickly moved in and placed to work. It is a simple dredging problem, moving about 70 million yards of material. I therefore urge your honorable committee to make the largest possible appropriation available to continue construction of the project on a continuing contract basis. I suggest something between 5 and 10 million dollars be made available with 5 million dollars as a bare minimum at this time.

The port district owns the necessary land and right-of-way and has spoil-disposal rights on adjoining land so that dredgers can begin operating in the turning basin area immediately and also along the barge canal and the upper stretches of the deep-water channel project itself. Rights-of-way can be procured by the port district and made available to the Federal Government for the remainder of the channel prior to advertising for bids and letting of contracts.

Acceptance by the Secretary of the Army of our loan of $500,000 we believe indicates that our project is an urgent one. Out of the $500,000 originally advanced, $200,000 was subsequently transferred to the open account to repay the Federal Government for certain work which they were doing for the account of the port district, in accordance with our agreement of assurance. An additional $100,000 was repaid to the port district. The Federal Government, however, still has $200,000 of port district money which has not yet been returned. We are not pressing for immediate return of this money but we do most urgently request that in view of the seriousness of the intercoastal rate fight and of the urgent need for immediate completion of our project, that a minimum of $5,000,000 be appropriated in the budget now pending before your honorable committee for speeding up construction at lowest cost to the Federal Government.

In summing up let me repeat:

1. The Secretary of the Army accepted the $500,000 in order to speed up construction and enable the port commission to start its terminal construction.

2. The port district commission has an investment of $1,077,000 in terminal facilities and $654,000 in real estate but is held up in further construction until the Federal Government completes the dredging.

3. It is more urgently needed at the present time than it was in 1948.

4. It definitely lends itself to the national defense program:

(*a*) By providing deep-water facilities for the use of military establishments already located at Sacramento,

(*b*) By providing deep-water facilities for the use of the steel mill of the Yolo Steel & Metal Co. which it is anticipated will be completed and ready to operate within about 18 months,

(*c*) For a distance of 20 miles it provides an inland area which can be served by deep-water vessels, rail and highway and all out of a conjested area. This is an ideal location for military establishments and defense industries.

5. It will restore terminal intercoastal freight rates and eliminate the continual legal controversies with respect to terminal rates by transshipment.

Local interests have done much more than required of them and are prepared to continue doing their part. I therefore urge your honorable committee give favorable consideration to our request for a minimum of $5,000,000 for dredging work on the deep-water channel project to be done during the next fiscal year.

Respectfully submitted.

SACRAMENTO-YOLO PORT DISTRICT,
W. G. STONE, *Port Director.*

CHANNEL DREDGING REQUIRED

Mr. STONE. I also have three drawings which I will briefly explain, so that the committee will see what the project is.

Plate No. 1 of the United States engineers shows the proposed project from deep water in Suisun Bay to Sacramento [indicating]. The blue line is the present crooked Sacramento River Channel. The heavy black line is the deep water channel [indicating]. Four appropriations have been made so far, resulting in the completion of approximately 4½ miles of the deep-water channel shown by red on this drawing [indicating].

From the Sacramento River to the turning basin retaining levees have been constructed and along the deep water channel for 2 miles. Levees have been thrown up but no dredging has been done between those levees [indicating].

Chairman MCKELLAR. How much money has been spent on the entire project?

EXPENDITURES TO DATE

Mr. STONE. The Federal Government has spent about $2,300,000 in dredging and earth removing so far. Local interests have spent something over $1,740,000.

Chairman MCKELLAR. How much will it take to complete the project?

Mr. STONE. Roughly I believe something in the neighborhood of $20,000,000 for dredging.

HARBOR IMPROVEMENTS

The next drawing I have is the port district, consisting of the whole of Sacramento County and District No. 1 in Yolo County. It shows the proximity of military installations to the turning basin.

McClellan Field is located at this point [indicating] and has its own private dock at this point, on the Sacramento River, where it receives and ships materials and equipment of the Air Force including equipment for repair or replacement.

Mather Field is located at this point [indicating], the Signal Depot at this point [indicating]. They are all in close proximity to Deep Turning Basin in Lake Washington [indicating]. This drawing also shows the route of the channel [indicating].

The channel is paralleled by the Sacramento Northern Railroad and the State highway all the way for 25 miles downstream [indicating].

Senator ELLENDER. Would that channel divert very much water from the Sacramento River?

Mr. STONE. No, Senator; there will be a lock in the shallow draft, connecting the barge canal between the Sacramento River and the deep-water turning basin [indicating]. The last 25 miles of the deep water channel from this point [indicating] to the turning basin will be a dead-end channel and only such river water entering the deep water turning basin as is let in through the lock.

The next drawing I have shows the property in red, which has been purchased by the port district for initial construction.

It includes the barge canal between the river at this point and the turning basin at this point [indicating].

Shown in blue, is the turning basin and the deep-water channel for two miles over to the Yolo bypass.

A retaining levee has been thrown up around this entire area shown in red [indicating], but the dredging has not been done.

There is a definite need at the present time for additional warehouse storage, which the port district contemplates constructing in this general area.

The elevation of that land is 13 or 14 feet feet above sea level. When the dredging is completed, that land will be used for spoil-disposal purposes, raising the elevation to 21 feet.

The port district is held back in its construction program for warehouses, which are sorely neded, until this dredging is completed.

There are many national defense aspects of the project, one of which was mentioned in my presentation. I will not duplicate, except to say that the Defense Production Administration on the 3d of March issued a certificate of necessity for construction of a pig-iron plant which will be located along the deep-water channel below the turning basin. Since that certificate was issued, option has been taken on 1,700 acres of land for a plant site with 2 miles of water front along the channel. The steel mill owners expect to exercise the options in the near future, and the plant will be producing pig iron in 18 months after construction starts.

For 25 miles below the turning basin the area lends itself to Defense plant and military installations, it being located inland and being served by the Sacramento Northern Railroad and State highway. It has the advantage of inland location out of a congested area, railroad transportation, highways, and deep water when the channel is completed.

AMOUNT REQUESTED

We urge that the largest possible appropriation be made for dredging in the next fiscal year. We suggest a minimum of $5,000,000 for dredging so that a continuing contract can be let for dredging thereby reducing the per-yard cost of dredging.

Chairman McKellar. Did the House allow any money for it?

Mr. Stone. No, Senator, I regret to say the House did not.

There are twenty dredges available which are idle right now around the San Francisco Bay. The Dredging Contractors Association of California indicates five of those dredges can be floated in here and could do that dredging within 2 years' time or less. That equipment is idle now. It is a simple case of moving about 70,000,000 yards about 1,500 feet.

I urge that the largest possible appropriation be made so that this dredging program may be completed at the earliest possible date so that the local port authority can proceed with its construction program.

The local interests are far ahead of the Federal Government in their construction program and they are held back now until the dredging is completed.

I thank the committee for the opportunity of presenting this project for consideration.

Chairman McKellar. Are there any questions, gentlemen? If not, we are very much obliged to you.

Mr. Stone. May I ask at this time that Mr. Charles W. Deterding our county executive also cover this project very briefly?

Mr. Deterding. My name is Charles Deterding, representing the county of Sacramento.

I have been authorized to appear in support of what Mr. Stone has said relative to the channel. I have a resolution from the chamber of commerce and likewise one from the city of Sacramento which I will submit in support of the project.

Our local interests are united in support of this project and we sincerely urge the committee make the largest possible appropriation for it.

(The resolutions referred to follow:)

RESOLUTION—SACRAMENTO-YOLO DEEP WATER CHANNEL

Whereas it is becoming increasingly necessary that the Sacramento-Yolo deep-water channel be completed at an early date, and

Whereas intercoastal steamship rates are in litigation due to the lack of completion of the deep-water channel, and

Whereas in the interest of national defense the deep-water channel should be completed immediately; No, therefore, be it

Resolved, That the board of directors of the Sacramento Chamber of Commerce authorizes Mr. Charles Deterding, Jr., county executive of Sacramento County, to represent this organization before the Senate Subcommittee on Civil Functions on behalf of the early completion of the Sacramento-Yolo deep-water channel.

This is to certify that the foregoing is a true and correct copy of the resolution adopted at the regular meeting of the board of directors of the Sacramento Chamber of Commerce held Monday, May 5, 1952.

[SEAL] PAUL M. CLARK, *Secretary of the Board.*

RESOLUTION ADOPTED BY THE SACRAMENTO CITY COUNCIL MAY 8, 1952—SACRAMENTO DEEP CHANNEL

Whereas the Sacramento deep-water channel heretofore authorized by Congress is more urgently needed at this time than in year 1946 when the project was created by the Congress, and

Whereas the Federal Government has initiated construction and appropriated $3,000,000 for dredging, and

Whereas the intercoastal carriers have canceled intercoastal terminal rates which are now under litigation, and

Whereas there are a number of dredgers available in the San Francisco Bay area at the present time, and

Whereas the only solution to the rate problem affecting both seaboards is the completion of the channel: Now, therefore, be it

Resolved, That the City Council of the City of Sacramento hereby respectfully memorializes the Senate Subcommittee on Appropriations for Civil Functions to recommend sufficient appropriations for the further dredging of the Sacramento deep-water channel; and be it further

Resolved, That Mr. Charles W. Deterding, county executive of the county of Sacramento be and he is hereby authorized and requested to personally appear before said committee to present pertinent facts and data in support thereof.

Adopted by the City Council of the City of Sacramento in regular session assembled this 8th day of May 1952.

[SEAL] H. G. DENTON,
City Clerk of the City of Sacramento.

Senator Cain. May I ask the witness if it is fair to assume that if the Holland tidelands bill becomes the law, it will be somewhat easier in the future for California to have available to it more resources with

which to carry out some of these admittedly worth while projects? If it is not proper for me to ask such a question, particularly on this occasion, I will withdraw it, but I would like to raise it.

Mr. DETERDING. I could not answer this question at this time. I know it will bring in additional revenue.

Senator CAIN. You are not an authority on that question?

Mr. DETERDING. I am not an authority on this subject and am not prepared to answer it.

Senator CAIN. I would be pleased to say that the comment has been recently made before the committees of Congress by a large number of those whom we know to be qualified, who say the passage of that legislation would be most beneficial to the Sovereign State of California.

Mr. DETERDING. I think it would.

Senator KNOWLAND. I would appreciate it if the Army engineers could place in the record, if they have not already done so, pertinent data relative to the Santa Barbara project and the Noyo Harbor project as well as the Crescent City Harbor, stating what the status is of each project and what might be an economic expenditure in the event the Congress should decide to provide some funds.

I would also like the same thing regarding Coyote Valley Dam, which I understand is primarily investigation money.

The other day I raised a question regarding beach erosion at Seal Beach and Surfside, and if a statement could go into the record relative to that, I would appreciate it. I would also like a statement on the beach erosion problem in the Port Hueneme area. Will you do that, General?

General CHORPENING. Yes, sir.

Senator ELLENDER. This material will be placed in the record following the testimony with reference to the California projects.

(The material referred to follows:)

SANTA BARBARA HARBOR, CALIF.

Authorization.—River and Harbor Acts of August 30, 1935, and March 2, 1945.

Location and description.—Santa Barbara Harbor is located on the Pacific coast, 90 miles northwest of Los Angeles Harbor and 230 miles southeast of San Francisco Harbor. The project provides for Federal maintenance by dredging of depths existing in the harbor in 1934.

Status.—Maintenance has been provided as required consistent with the availability of funds.

The Public Works Committee of the House of Representatives by resolution dated March 19, 1946, authorized a review of reports on Santa Barbara Harbor. The preparation of this report was delayed due to lack of personnel and funds, and is now deferred in accordance with criteria established by the President. The report will consider the enlargement of the existing harbor, simplification of the maintenance problem and the provision of full protection from all seas.

$26,000 could be profitably expended during fiscal year 1953 for completion of the review report on Santa Barbara Harbor provided that adequate funds are available for investigations of higher priority.

NOYO RIVER AND HARBOR, CALIF.

Total estimated Federal cost	$2,130,500
Allotments to date	238,600
Amount that could profitably be expended in fiscal year 1953	500,000

Authorization.—1948 and prior river and harbor acts.

Location and description.—Located on the California coast about 135 miles northwest of San Francisco, and about 1 mile south of the lumber mill town of Fort Bragg. The project provides for a breakwater extending about 1,100 feet

from the south headland of Noyo Harbor; an entrance channel into Noyo River 10 feet deep and 100 feet wide, a channel in the river 10 feet deep, 150 feet wide and 1.15 miles long.

Status.—The entrance channel is complete and the river channel has been dredged for 0.65 miles.

Proposed operations.—$500,000 would be sufficient funds for one season of construction work on the breakwater.

Justification.—Noyo is one of the most important fishing centers on the northern California coast. The area tributary to the harbor produces a large amount of lumber, particularly redwood. Substantial savings in the transportation and the processing of fish and timber will accrue upon completion of the project. The breakwater is necessary to provide a sheltered area for vessels to moor, dock, and load lumber and to remove some of the hazards of entering and leaving the river channel.

CRESCENT CITY HARBOR, CALIF.

Total estimated Federal cost	$7,389,000
Allotments to date	3,967,100

Authorization.—1945 and prior river and harbor acts.

Location and description.—Crescent City Harbor is located 17 miles south of the Oregon State line and midway between San Francisco Bay and the mouth of the Columbia River. The authorized project provides for a rubble mound breakwater approximately 5,700 feet long extending from Battery Point to Round Rock, a rubble mound sand barrier from Whaler Island to the easterly shore, an inner breakwater extending northwesterly from Whaler Island, so as to form a protected inner harbor; for maintaining, by dredging, a basin 1,800 feet long and 1,400 feet wide to a depth of 20 feet, except in rock, for removal of pinnacle rocks in the inner harbor and for maintenance dredging in the vicinity of the seaward end of the sand barrier.

Status.—Work authorized by the River and Harbor Acts of 1918 to 1937 inclusive, has been completed. The work remaining to be done is that authorized by the 1945 River and Harbor Act and includes the completion of the 1,700-foot extension of the main breakwater to Round Rock and the removal of a pinnacle rock at the entrance to the inner harbor. Studies with a view to determining the remaining improvements necessary to afford proper protection including the most desirable breakwater alinement at Crescent City Harbor are now nearing completion. Completion of these studies will permit initiation of construction of remaining authorized work during fiscal year 1953. $800,000 could be profitably expended on breakwater extension construction during fiscal year 1953.

Justification.—Crescent City is the center of an important lumber producing area and the base of a moderate-sized commercial fishing fleet. The harbor is the only harbor of refuge between Humboldt Bay and Coquille River, Oreg., a distance of about 160 miles. There are 30 mills operating in the area and producing lumber vital to the defense program. As there are no railroads in the area, most of the lumber must be handled by truck which seriously hampers the industry. On the premise that the authorized breakwater would be completed and provide a year-round protective harbor one firm has made a large capital outlay for the construction of terminal facilities and the purchases of barges for shipment of lumber by water. This firm proposes to ship from 15,000 to 18,000 tons of lumber each month over these facilities and other firms in the area are also beginning to ship lumber by water. It is estimated that the operations of these latter firms will amount to 2,000 to 4,000 tons per month which will move over the Citizens Dock. A terminal for receipt of barge shipments of bulk petroleum products has recently been established in Crescent City. When in full operation, this facility is expected to receive 100,000 tons of petroleum products annually.

BEACH EROSION AT SEAL BEACH AND SURFSIDE, CALIF.

During the last war, in 1944, the Department of the Navy built a harbor at Anaheim Bay, Calif. This harbor is artificial, consisting of a basin dredged into lowland and two jetties, or breakwaters, protecting the harbor entrance. The harbor was built and is still used for an ammunition and net depot.

Since construction of the Anaheim Bay Harbor jetties, the shore line down coast, or southeast of the harbor entrance has suffered continuous erosion. In

1947 the beach at Surfside, the first beach town down coast from the harbor, had eroded to a point where private and municipal properties were in danger of being destroyed. Congress in H. R. 3791, Eightieth Congress, first session, appropriated $250,000 for emergency work at Anaheim Bay, Surfside, Calif. These funds were used to provide emergency protection for Surfside, with an estimated life of 5 years, by pumping sand from within the protecting Anaheim Bay Harbor jetties to build out the eroded beach and create a feeder beach down cost of the harbor. The estimated 5-year life span of that emergency work has expired and an emergent condition now exists along the beach down coast from Anaheim Bay Harbor.

The shore line immediately upcoast of the Anaheim Bay Harbor is owned by the city of Seal Beach. Since completion in 1949 of the offshore detached breakwater for Long Beach Harbor, altered wave direction has caused erosion of the shore at Seal Beach. Recently the erosive action has been accelerated in the easterly section of this beach near the upcoast Anaheim Bay Harbor jetty and, where there was about 300 feet of beach a few years ago, there presently remains only about 65 feet of beach in front of property improved with expensive homes and apartment houses, and damage is now being done to these properties.

The situation along both the Seal Beach and Surfside Beach segments is becoming progressively more acute and continuing beach erosion endangers these communities. Presently experienced damages will become increasingly greater and ultimately necessitates abandonment of buildings, sewage disposal facilities, roads and streets, and other facilities.

The Corps of Engineers does not have authority nor funds to perform emergency remedial beach erosion measures at this time. The present situation at Seal Beach and Surfside can be corrected by pumping sand from Anaheim Bay Harbor or from San Gabriel onto the eroded beaches in sufficient quantity to restore their width to dimensions that would prevent damage to improvements now being threatened. This operation is estimated to cost about $100,000 for the Seal Beach segment and about $250,000 for the Surfside and down coast segment. This emergency work would provide protection to the beaches and adjacent improved properties for several years, allowing ample time to process our outstanding survey report being made to determine long-range corrective measures for protecting these beaches.

The outstanding investigation, being made under authority granted by the River and Harbor Act approved July 24, 1946, Public Law 525, Seventy-fifth Congress, will determine the best plan to provide long-range stabilization of the beaches upcoast and downcoast from Anaheim Bay Harbor. This report is tentatively scheduled for completion this summer. Any long-range plan of protection recommended in this outstanding report will require replenishment of the eroded beaches and accordingly, the recommended plan, if constructed in the near future, will benefit from any emergency work done now. Sand from the emergency work remaining on the beaches at the time construction of any long-range plan is undertaken will reduce the quantity of sand required to be pumped onto the meaches as an initial part of the long-range plan of protection.

PORT HUENEME, CALIF.

The River and Harbor Act of July 24, 1946, authorized a preliminary examination and survey report of the harbor at Port Hueneme, Calif., with a view to shore protection. A report was prepared in accordance with the above resolution and in partial response to the River and Harbor Act approved March 2, 1945, which authorized a preliminary examination and survey of the coast of southern California, with a view to establishment of harbors for light-draft vessels.

The report of the Chief of Engineers recommends adoption of a project for establishment of a harbor for light-draft vessels, on the coast of southern California and about 1 mile northwest of the existing harbor of Port Hueneme, and for shore protection works, all at an estimated cost to the United States of $4,041,000 for construction and $160,000 annually for maintenance; subject to certain conditions of local cooperation.

The report is now before the Bureau of the Budget for their comments on analysis and relationship of the proposed work to the program of the President.

RUSSIAN RIVER PROJECT, RUSSIAN RIVER BASIN, CALIF.

(Includes Coyote Valley Dam)

Total estimated Federal cost	$14,219,000
Allotments to Date	None

This project was authorized by the Flood Control Act of May 17, 1950, in accordance with House Document 585, Eighty-first Congress, second session, and provides for the construction of a dam on the East Branch of the Russian River at Coyote Valley for flood control, water conservation, irrigation, and related purposes; and for channel-stabilization works on the Russian River between the mouth and mile 97 and on the lower reaches of certain tributaries. The authorized improvements will provide a high degree protection downstream as far as Healdburg and measurably improve flood conditions below Healdburg and make available an annual yield of 24,000 acre-feet of supplemental water for municipal, industrial, and agricultural uses. No work has been done on the project. Planning funds in the amount of $100,000 could economically be used to advance soils and foundation investigations and preliminary engineering work.

STATEMENT OF HON. ROBERT T. SECREST, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

DAM NO. 10, MUSKINGUM RIVER NAVIGATION PROJECT, OHIO

Chairman McKellar. The next witness is Congressman Robert T. Secrest, of Ohio.

Representative Secrest. Mr. Chairman and members of the committee, I would like to submit a couple of pictures here.

The Muskingum River is located in eastern Ohio. It is 112 miles long and flows in a southerly direction to join the Ohio River at Marietta, Ohio.

The watershed reaches within 40 miles of Lake Erie and the river drains over one-fifth of the total area of the State.

The largest city on the river is Zanesville, Ohio, which has an urban population of 50,000 people.

LOCK AND DAM SYSTEM

During the period 1837 to 1841 the State of Ohio constructed a system of 10 locks and dams on the Muskingum River. Under the River and Harbor Act of August 1886 the Federal Government took over these 10 dams for maintenance and operation, and have had them since 1886.

Locks and dam No. 11 were added to the system under the River and Harbor Act of March 3, 1905. These 11 dams make the Muskingum River navigable for a distance of 93 miles with a maximum depth of 4½ feet.

Now, on April 22, after the civil-function bill had passed the House, a 70-foot break occurred in dam No. 10, and that is the picture you have there.

Now the water in the pool has dropped more than 5 feet since that time. The sewer lines of the city of Zanesville empty into this pool and are now exposed, creating a major hazard to the health of the community.

WATER WELLS

Furthermore, wells, upon which the city depends for its water supply, depend upon seepage from the pool through adjacent gravel beds. These wells have dropped substantially in the last 20 days.

Unless the dam is replaced, four additional wells must be drilled at a cost of $240,000 and there is no assurance that this expenditure will serve to fulfill the city's needs.

EXTENSION OF SEWER OUTLET

In addition, an extension of the sewage outlet system will cost no less than $158,000.

REPAIR COSTS

Senator KNOWLAND. What is the estimated cost of the repair?

Representative SECREST. Approximately $500,000. The city has no funds to meet this emergency and, in my opinion, the Federal Government is at least morally bound to replace or repair this dam.

Also, a number of industries are located along the pool above No. 10 dam many of which are engaged in vital defense work.

The Armco Steel Corp., a major producer of defense material, draws one-half its water supply from this pool. The immediate cost to the city and these industries will just about equal the cost of replacing dam No. 10. The repairs would be substantially less.

REPLACEMENT OF DAM

Now next week, Senator Taft and a delegation representing the city of Zanesville, will appear before this subcommittee, to urge an amendment to the civil-functions appropriation bill. This amendment will propose that the amount for operation and maintenance of the dams be increased from $500,000 to provide for replacement of this dam. If the committee and the engineers think speed is necessary in the emergency and want to repair it, that will be satisfactory with us, whatever you determine is the best thing to do.

I hope the committee will approve this.

There are seven reasons why it is only fair for us to make this request and I am only sorry that we could not do something in the House, but the bill had passed and no one anticipated this break.

Senator ELLENDER. Did anybody appear before the House committee?

Representative SECREST. No. It happened just 20 days ago and the bill had already passed the House.

Chairman MCKELLAR. How does it affect the water supply?

Representative SECREST. The water had substantially lowered in all Zanesville wells.

Chairman MCKELLAR. Does that mean that the water is bad, unpalatable?

Representative SECREST. No. The whole Muskingum Valley is a solid gravel bed. It reaches out from the Muskingum. The wells are drilled back inland and fed from the pool above the dam. Seepage underground lowers the water supply until they will need four new wells at a cost of $240,000.

Senator ELLENDER. If this dam is rebuilt, you would not have to build this?

Representative SECREST. No. The sewers will be covered up again. Eventually we will have a sewerage-disposal plant on the river.

Senator CAIN. Do we not have certain moneys available for disasters?

Representative SECREST. I talked with Senator McClellan this morning. He said that, in his opinion, if they had any emergency money it could and should be used on this project, and that definitely

he thought that last year, when you included this as one of the projects for maintenance for another year, that you meant maintenance and not merely to hold it under Government control another year.

That is his interpretation of that amendment. I have had no chance to inquire since as to whether the engineers have any emergency money, but he says if they have, they should be using it now.

Senator CAIN. You are maintaining to this committee that your city is immediately faced with an emergency from which very dire consequences will flow if corrective action is not promptly taken?

Representative SECREST. That is right. I think there are several reasons why this is fair and I would like to briefly state them, and you gentlemen can be the judge.

MAINTENANCE OF DAM

In the first place, since the Federal Government has been responsible for the maintenance of this dam since 1886 and is today the only agency with any control over it, I think the Federal Government should repair it. There is no one else responsible for this condition except the Congress, for not appropriating the money.

Chairman MCKELLAR. Did you state a while ago how much it will cost?

Representative SECREST. About $500,000 for a new dam, a little over that.

Senator ELLENDER. How much money has been spent by the Government in maintaining these several dams?

Representative SECREST. I would say practically none, since 1940. About 1940, since they have made any extensive repairs at all

BREAKS IN SEWER LINES

Senator CAIN. I understood you to say that there are some large breaks in your sewer lines?

Representative SECREST. No. When this pool had 8 or 10 feet of water or more, the sewer lines were built under the water. That pool has been in existence there since 1886, so, as they built sewer lines back years ago, they built them under the water and they discharged, and do now. The pool has fallen over 6 feet, the sewer lines are sticking up in the air, 24-inch sewers and 20-inch sewers.

Senator KNOWLAND. Raw sewage?

Representative SECREST. Yes.

Senator CAIN. If that condition continues, how long would it be before the existence of that open or raw sewage would constitute a grave health menace to your community?

Representative SECREST. Very definitely, soon, and right now it is very uncomfortable for some of the people who live close to the area. Now it is cool weather, too. This only happened 20 days ago.

Senator KNOWLAND. Do any of the cities downstream get any of their domestic water out of the river?

Representative SECREST. No; they drill wells back, and, of course, you have a long filtering process back to those wells, to purify it, and they use chemicals, too.

Senator CAIN. You have not taken this matter up with the Army engineers?

Representative SECREST. Yes. They said it is up to the Congress to set the policy as to whether we want to repair the dam.

Senator CAIN. Would it be proper to have the Army engineers give a little testimony for the record on this particular hazard that exists out there?

Chairman MCKELLAR. I wish you would look into it, General, and give us a report on it.

General CHORPENING. We are prepared to make a statement on it today.

Senator ELLENDER. Also, whether or not you have any emergency funds to use for this purpose, rather than have it appropriated.

Chairman MCKELLAR. I should think that would be a very serious menace to the health of these people.

Representative SECREST. The second thing I would like to point out is that traffic has declined. In 1943, it was a million tons and then it dropped to 300,000 tons, a good bit of which was local from one pool to the other.

The engineers last year recommended that we make studies toward turning this back to the State, the whole system. Those studies are being made by the State of Ohio.

I do think this, that even if they are to be turned back to the State at some future date they should be turned back in a reasonable condition.

NUMBER OF DAMS

Senator ELLENDER. How many dams were there?

Representative SECREST. Eleven dams from one end of the river to the other. This is No. 10. This is toward the upper reaches.

Now there are 14 major flood-control dams on tributaries of this Muskingum River, built back in the early thirties as a joint project of the Federal Government, the State of Ohio, and the conservancy district organized under State law, and the complete control of these 14 dams is under the Army engineers and the Federal Government. The output of water that comes down this stream at any given time during above-pool stage is in their control. As a result of that, in the spring, for weeks there has been an abnormal flow of water coming down this river which picks up debris and has made a little more wear and tear on these dams than ordinarily would be the case.

I do not say that this is the cause of this dam washing out, but I think it probably hastened it in some measure.

Senator ELLENDER. I notice that this dam is wooden construction.

Representative SECREST. No. 11, above that, is concrete. It was built by the Army engineers about 1905. Seven of the dams are in very good shape. This is the worst one by far, of all of them. Now, from the standpoint of the health and water supply, certainly it is essential.

DIRECTIVE FOR MAINTENANCE OF RIVER LOCK SYSTEM

I want to point out one other thing that I think is important.

On page 12 of Senate Report No. 631, Eighty-second Congress, you directed the engineers to maintain for 1 year five river lock systems. They were the Big Sandy and Kentucky Rivers in Kentucky; the

upper White and Ouachita Rivers, Ark.; and on the Muskingum River, in Ohio. That year will not be up until the 30th of June.

Senator CAIN. The assumption against that requirement was that the State of Ohio would take over the maintenance of these five dams?

Representative SECREST. Eventually, that was the engineers' suggestion, and possibly would come about, and maybe will, yet.

Senator CAIN. And probably the State looks forward to the time when it can assume that responsibility?

Representative SECREST. That is true. But certainly the State would not assume a dam in this condition. I think it is the obligation of the Federal Government to get it in as reasonable condition as when they took it from the State.

During 1951 the traffic on the Muskingum River did increase, and the prospect that this river will in the future become a major artery of commerce is excellent. On both sides of the river from one end to the other, are billions of tons of excellent bituminous coal. Every inch of that river has excellent bituminous coal.

Senator ELLENDER. How wide is it?

Representative SECREST. It extends back 50 miles in one direction and miles in the other direction. There are billions of tons of it. Under my county alone, off the river, in my little county alone, it has been tested and proven that there are over 2,000,000,000 tons of minable coal. There are three veins. There is one vein that can be stripped and is being stripped now.

Senator ELLENDER. How thick is it?

Sepresentative SECREST. Three to six to eight feet. There are three veins, one 200 feet down and one 400 feet, all minable.

Somewhere in the Ohio Valley an atomic energy plant is to be constructed, from all we know now. It may be some years, but there is certain to be the day when other coal resources will be exhausted, as they are being exhausted in Kentucky, and West Virginia, and this will be the greatest source of coal left in the eastern part of the United States.

To abandon the river with that future to the potential of our national defense, our industrial well-being, I do not think will be good policy for the Congress. As a matter of national defense, I think this should be kept in reasonable condition.

I want to urge this committee to approve Senator Taft's request, which he will make to you formally next week, to grant whatever you and the engineers may deem the proper thing to do, either a replacement of this dam or a repair of it in reasonable condition.

Senator CAIN. But the real point you are making is that the repair ought to be undertaken today?

Representative SECREST. As soon as possible.

Senator CAIN. Rather than waiting?

Representative SECREST. Because there is a health hazard that the people themselves cannot help. They have depended on that pool there since 1886. They never expected it to break, and I think the Federal Government has an obligation to keep it there.

Senator CAIN. When the Army engineers provide their statement, we will at least know to what extent, if any, the engineers can presently be of emergency assistance.

Representative SECREST. I want to thank the committee. I appreciate your kindness.

(The following prepared statement was supplied:)

MUSKINGUM RIVER NAVIGATION PROJECT, OHIO

Description.—The Muskingum River, located in eastern Ohio, is formed by the confluence of the Walhonding and the Tuscarawas Rivers, flows 112 miles in a southerly direction and joins the Ohio River at Marietta, Ohio.

Authorized project.—The existing system of locks and dams, Nos. 1 to 11, inclusive, is an outgrowth of a part of the old Ohio and Erie Canal system which was constructed by the State of Ohio during the period 1837–41. Locks and dams Nos. 1 to 10, inclusive, were taken over and maintained by the Federal Government under the River and Harbor Act of August 5, 1886. The River and Harbor Act of March 3, 1905, provided for the construction of an additional structure, lock and dam No. 11. The project works provide slack-water navigation between lock No. 1, at Marietta, Ohio, and Dresden, Ohio, a distance of 93 miles. The maximum depth which is generally now possible to maintain without extensive improvement is 4.5 feet, although in certain portions 5.5 feet is available. Above slack-water provided by dam No. 11 the controlling depth is 2 feet.

Dam No. 10.—This dam, located nearly 78 miles above the mouth of the Muskingum about in the center of the city of Zanesville, was breached on April 22, 1952. The dam was built by the State of Ohio in 1837–41 and transferred to the United States in 1887. Since then, it has been under the jurisdiction of the Federal Government. It is a rock-filled timber crib structure 514 feet long having a damming height of about 11½ feet.

Navigation use.—Prior to 1943 the Muskingum system was rather extensively used by navigation. The principal commodities being transported on the river were petroleum and coal. After that time, those shipments declined rather abruptly and during the last few years commercial traffic on the Muskingum has been extremely limited. Because these lock and dam structures were so little used by general commercial navigation and because of limited funds appropriated for maintenance purposes, it has been necessary to defer and curtail both the maintenance program and lock operations on the Muskingum.

Project operation.—After a detailed survey it was determined that further maintenance and operation of the Muskingum River waterway with exception of lock No. 1 was not warranted and a public notice was issued in February 1952 stating that the Corps of Engineers would cease all operations and maintenance of structures with exception of lock and dam No. 1 on June 30, 1952. The public notice pointed out that certain of the structures had greatly deteriorated due to age and major repair would be required if their life was to be prolonged and the pool maintained. Local interests were offered an opportunity to take over the facilities for such operation and maintenance as they desired.

Pool of dam No. 10.—The direct result of the failure of dam No. 10 will be for practical purposes complete loss of the pool. This will not be detrimental from the standpoint of general navigation inasmuch as the continued operation of the upper reach of the project is not economically justified. However, the lowering of the pool of dam No. 10 will probably have an effect on the water supply and sewage systems for both the city of Zanesville and industries located in that general area. In addition, the loss of this pool will materially diminish any recreational value that the area might have had.

Dam reconstruction.—Inasmuch as this Federal project was authorized for purposes of commerce and navigation, and as general navigation no longer justifies maintenance of Dam No. 10, the expenditure of Federal project funds to reconstruct the dam is not contemplated unless such funds are appropriated by the Congress and their use for this specific purpose is so directed. Preliminary estimate of the cost of minimum reconstruction to restore the dam is $350,000. Replacement of this deteriorated dam would cost over $500,000. It is also estimated that it would take about 4 months to repair the breached section after a contract had been awarded.

Remedial measures by local interests.—The following represents, within a reasonable degree, the magnitude of corrective works that would be required by local interests if the dam is not rebuilt. The city of Zanesville reports it will have to build supplementary wells to make up for the loss of water supply that is expected to occur due to the lower pool. Local authorities estimate that four additional wells, at a cost of $240,000, will probably be sufficient. The city at the present time dumps its sewage directly into the river. With the lower pool it

will have to extend the outlet system. It is estimated this will cost $158,000. The only industry affected by the loss of the pool will be Armco Steel Corp. They will have to supplement their water system and extend their sewage outlet. It is estimated that the total cost will be about $87,000. The total direct costs that may accrue to local interests appears to be $485,000. No attempt has been made to evaluate any loss of money due to the elimination of recreational features inasmuch as these are of an intangible nature and not susceptible to a direct evaluation.

STATEMENT OF KENNETH SIMMONS, YAKIMA TRIBAL ATTORNEY

THE DALLES LOCK AND DAM, OREG.-WASH.

Senator ELLENDER (presiding). Mr. Kenneth Simmons.

Senator CAIN. Mr. Chairman, I am privileged, sir, to acknowledge the presence in this room of two able representatives of the Yakima Indian Tribal Council, which has its main enterprises situated in the State of Washington. These gentlemen, by name of Mr. Alex Saluskin, who is the chairman of the Yakima Tribal Council, and Mr. Watson Totus. I know that the other members of this committee are delighted to have these real and true Americans here today.

I understand that with these two gentlemen is a Dr. Davidson, who, when called upon, will offer some technical advice in the form of a statement.

These three gentlemen are represented at the outset by Mr. Kenneth Simmons, whom I have reason to believe has represented the Yakima Tribal Council as its attorney here in Washington for quite some time.

I would only add, Mr. Chairman, what is obvious, that anyone is delighted to have a chance to listen to testimony to be offered by some of the pioneers, some of the front-runners, and some of the greatest Americans who ever lived, and in knowing individually Mr. Saluskin and Mr. Totus, they are splendid representatives of all of the Indians in the State of Washington.

Senator ELLENDER. Will you please proceed, Mr. Simmons?

Mr. SIMMONS. I deeply appreciate the remarks of Senator Cain. I want to say to this committee that I am very proud to represent the Yakima Tribe and speak for them. I have represented the Yakima Tribe for some 7 years in legal matters. Prior to that time I was connected with the Interior Department, and I had the honor and privilege of defending their fishing rights in the State and Federal courts.

Today the Yakima Tribe has authorized its members, who will appear before you, to testify and file written statements, as I shall do, and as Dr. Davidson shall do, in opposition to The Dalles Dam.

ACTION IN 1952 APPROPRIATION

I wish to call the attention of this committee to the action taken by the Civil Functions Committee of the House, at this session of the Congress. The Dalles Dam was authorized by the budget in the amount of $18,000,000. You will recall that at the first session of this Congress last year the House committee refused to appropriate any money for the Dalles Dam project until the full cost estimate had been determined and the treaty rights of the Yakimas satisfied.

Then, following a conference between Members of the Senate and the House, the last few days of the first session of this Congress this

year, $4,000,000 was appropriated. At this present session of the House, the House committee reported to the whole House, as follows:

The request of $18,000,000 to initiate construction on The Dalles Dam, Oreg., is denied.

Then, eliminating certain provisions, I wish to call to the particular attention of the committee the following language:

The committee will not give further consideration to this project until the treaty matter is settled to the satisfaction of all parties concerned—

referring to the Yakima Treaty of June 9, 1855, between the United States and the Yakima Tribe—

and until proper and final cost estimates are determined.

OPPOSED TO PROJECT

Now, if it please the committee, the Yakima Tribe is not presently interested in negotiating any settlement for these reasons: They are opposed to the construction of The Dalles Dam. They think it is a tragic mistake.

TOTAL ESTIMATED COST

I wonder if this committee really knows what the Dalles Dam will cost in dollars and cents and in food supplies to the United States? The present estimated cost of the Dalles Dam is $356,000,000. With all due credit to the Army engineers and the reclamation engineers—and I have had considerable experience with them, and certainly they are not always to blame, due to the rising prices and rising costs in this country—I have never yet seen one of these projects to be completed within the estimated cost.

I do not know how many millions or hundreds of millions of dollars the Dalles Dam will cost. It is certainly incumbent upon this committee to determine that cost.

DESTRUCTION OF FISHERIES

Then, in addition, the Dalles Dam will completely inundate the Celilo Fisheries, which have been used by the Yakima Indians since time immemorial. The lowest estimate of the value of the fisheries, made after a scientific study by the Oregon Fish Commission, runs about $23,000,000. We are not willing to concede that that is the value of the commercial and the subsistence fisheries.

In addition to that, gentlemen, I do wish to say one thing to you: I have spent years in the study of it, as has Dr. Davidson, and the Dalles Dam, in the best opinions of your finest fish biologists in the United States, will destroy the commercial fisheries in the Columbia. In all seriousness, if the commercial fisheries in the Columbia are destroyed, and we are at war, it may be very difficult to obtain fish from Alaska.

I do not know what percentage of the food supply of this country is furnished by the salmon. I do know that the value of the salmon in the Columbia River today runs into the millions of dollars, and it is a substantial source of food supply for the Nation.

In conclusion, let me make this statement: That the Yakima tribe is bitterly opposed, and always has been opposed, to the construction

of the dam. In addition, based upon sound economics, we think it is unfeasible. It is certainly not a national-defense project for the reason that it could not be completed until 1957.

In addition, your experts will advise you that insofar as the need for electrical energy is concerned, it can be developed on the tributary streams of the Columbia, at much less cost than the Dalles Dam, and in addition, the salmon industry will be saved, and the Indian treaty rights will be recognized.

In closing, I want to say that the Yakima tribe does not want you to appropriate one cent of money. They want to fish, earn their living, as true Americans always have.

Senator CAIN. May I ask one question?

Mr. SIMMONS. Certainly.

VALUE OF FISHING INDUSTRY

Senator CAIN. Have you said, Mr. Simmons, that the estimated annual worth of the salmon industry in the area to which you have made reference is $20,000,000?

Mr. SIMMONS. No. That would be the value of the fishery; in other words, it would take $20,000,000 at the going rate of interest to return to the Yakimas a sum which would net them the present annual value of the fish taken at Celilo.

If I may be permitted to do so, in order that it may be in the record in further answer to Senator Cain's question, the Commissioner of Indian Affairs in his memorandum of October 11, 1946, to the chairman of the Pacific Northwest Coordinating Committee, declared:

> The principal surviving Indian fishery is at Celilo Falls. There, the annual take of salmon and steelhead by Indians for sale and home consumption is about 2,500,000 pounds with a wholesale value of about $375,000 per annum.
>
> Between Booneville Dam and Celilo, and above Celilo on the Columbia, Dechutes, and other tributaries, the Indians take an estimated additional quantity of 900,000 pounds of fish with a value of $935,000, for their subsistence.

It must be remembered that that statement was made in 1946, so that with the rising prices the value today would be much greater.

I now have the pleasure of calling as my first witness Mr. Alex Saluskin, who is chairman of the Yakima Tribal Council.

Senator ELLENDER. All right, Mr. Saluskin.

Mr. SIMMONS. Mr Saluskin is speaking on behalf of the Yakima Tribe.

May I file these statements?

Senator ELLENDER. Yes.

(The statements referred to follow:)

STATEMENT OF THE YAKIMA TRIBE OF INDIANS OF THE STATE OF WASHINGTON IN OPPOSITION TO THE CONSTRUCTION OF THE DALLES LOCK AND DAM

The Yakima Tribe of Indians has on every occasion vigorously opposed the construction of the Dalles lock and dam on the Columbia River. On September 22, 1945, it presented oral and written protests against the construction of the Dalles Dam before a meeting of the Army engineers at The Dalles, Oreg. On April 25, 1946, it again appeared before a meeting of the Army engineers at The Dalles, Oreg., and protested the construction of the Dalles Dam. A meeting of the War Department Board of Engineers for Rivers and Harbors was held at Gravelly Point, Va., on March 28, 1947, for the purpose of hearing a report on the proposed construction of the Dalles Dam. The Yakima Indians were unable to be present at this meeting but presented a written protest

against the building of the dam. On March 18, 1950, in a general council meeting of the entire Yakima Tribe, a resolution was passed opposing the building of the Dalles Dam. This resolution was passed just prior to the approval by Congress on May 17, 1950, of the Rivers and Harbors Act, Public Law 516, which authorized the construction of the Dalles Dam.

The Yakima Indians would like to emphasize the fact that they have actively opposed the building of the Dalles Dam prior to as well as following its authorization by Congress on May 17, 1950. In other words, they have consistently and at all times opposed the construction of the dam.

Hearings were held before the Subcommittee of the Committee on Appropriations, House of Representatives, Civil Functions, Department of the Army, appropriations for 1952 at the first session of the Eighty-second Congress on this project.

On May 7, 1951, four delegates representing the Yakima Tribe of Indians in the State of Washington and the Yakima tribal attorney testified in opposition to the construction of the Dalles lock and dam and filed statements with the committee which appear in part 2 in the printed record of the hearings before this subcommittee on pages 311 to 321. Following the hearings, the report from the Committee on Appropriations contained the following statement to the Committee of the Whole House:

"The request of $18,000,000 to initiate construction on the Dalles Dam, Oreg., is denied. This is a new project, authorized in Public Law 861 of the Eighty-first Congress. To date no funds have been made available for the planning of this project. The committee does not feel that study of this project has sufficiently progressed for the Corps of Engineers to be able to definitely inform the Congress of the ultimate total Federal costs. In a treaty negotiated between the United States and the Yakima Tribe of Indians on June 9, 1855 (12 Stat. 951), the Indians were granted certain fishing rights on the Columbia River. These rights will be completely destroyed in direct violation of the treaty if construction of the dam is approved. Aside from the moral and legal treaty aspects, the present estimated cost of the Dalles Dam does not contemplate any payment to the Indians for their economic loss, estimated at $900,000 annually. The committee will not give further consideration to this project until the treaty matter is settled to the satisfaction of all parties concerned and until proper and final cost estimates are determined."

Particular attention is called to the statement in this report that the committee would not give further consideration to the project until the treaty matter was settled to the satisfaction of all parties concerned—referring to the treaty rights of the Yakima Tribe of Indians guaranteed by the Yakima treaty of June 9, 1855 (12 Stat. 951).

At the closing days of the first session of the Eighty-second Congress $4 million was appropriated for this project without any legislative requirement that compensation be first paid to the Yakima Tribe for its fishing rights which were to be destroyed by the construction of the Dalles Dam, nor was any provision contained in the legislation that an action in condemnation be instituted to acquire the property which would be taken or destroyed.

On December 14, 1951, the Corps of Engineers of the United States Army, Portland District, issued invitations for bids calling for the construction of a cofferdam and powerhouse excavation for the Dalles Dam, Oreg., to be opened on January 22, 1952. The Guy F. Atkinson Co., of San Francisco, Calif., was awarded the bid for the powerhouse excavation and other work in connection with this project, and are now actively engaged in excavation and other work in the Columbia River near The Dalles, Oreg.

In pursuance to the invitations for bids, contracts have been let by the Corps of Engineers for certain initial work to be done on this project which are in excess of $6,000,000, exceeding the amount of money now available through appropriations by the Congress for this project.

The present budget of the President of the United States requests an appropriation of $37,500,000 for the continuance of work on The Dalles Dam. Hearings were held before the committee of Civil Functions of the House of Representatives during February and March 1952. Delegates representing the Yakima Tribe of Indians and Dr. Frederick A. Davidson an aquatic biologist employed by the Yakima Tribe testified before this committee in opposition to the entire project. The Yakima Tribe through its delegates maintained its original stand in opposing the construction of The Dalles Dam. Following extensive hearings before this committee of the House of Representatives during March of the present year the report of the committee which was committed to

the Committee of the Whole House was issued on March 27, 1952. That part of this report which refers to The Dalles lock and dam in particular, states:

"The amount of $37,500,000 was requested for The Dalles lock and dam, Oregon. In the report accompanying the civil functions appropriation bill, 1952, the committee stated that it would not give further consideration to this project until the treaty matter (12 Stat. 951) granting the Indians certain fishing rights on the Columbia River had been settled and proper and final cost estimates determined. The hearings on the present bill disclosed that no further negotiations have ever been conducted with the Indians and that no final cost estimates for the project have been reached. The sum requested is accordingly denied."

The House of Representatives upon consideration of this report refused to restore the appropriation for The Dalles lock and dam in the appropriation bill and adopted and affirmed the report of its committee, thus refusing to appropriate any money whatsoever for the continuance of work on The Dalles Dam. In the meantime, work is still progressing under the contracts awarded by the Corps of Engineers totaling in excess of $6,000,000, which definitely commits the United States to expenditures over the $4,000,000 appropriated by the Congress and now available for this project. The contracts do, however, contain a 30-day provision which will permit work stoppage under the contracts upon 30 days' notice by the Corps of Engineers to the contractors, which it is assumed will be the action taken by the Corps of Engineers in the event no further funds are appropriated by this Congress.

The Yakima Indians oppose the construction of The Dalles lock and dam because it will flood out Celilo Falls and destroy their fishing sites there, the rights to which were assured them in their treaty of June 9, 1855. Furthermore, the Yakima Indians do not consider The Dalles Dam as a necessity to the industrial development of the Northwest, nor will they admit that its construction will eliminate the highly publicized shortage of power in the region.

It must be remembered that it will take several years to complete this project. The Army engineers do not anticipate the production of electrical power by the dam for at least 7 years and even then the dam will be equipped with only half the total number of its generating units. The actual shortage of power in the Northwest occurs only during the period of low water in the rivers which lasts just a few months in the year. When the water flow is normal or above, the present dams and those now under construction can more than supply the electrical power needed in the region. The additional power necessary to supplement the drop in production by the dams during the low-water period can be provided quicker and with far less expense by the installation of auxiliary steam power plants at the centers of industrial development. Just recently the Bituminous Coal Institute, a department of the National Coal Association, Washington, D. C., announced the perfection of an engine that will produce mechanical power with coal as a fuel more effciently than that produced by Diesel fuels. The Northwest has an abundance of coal to be mined. Auxiliary steam plants have been used for years by the private power companies in the Northwest to supplement their peak power loads.

The Yakima Indians believe that if additional dams are built in the Columbia River system, it will best serve the interests of the region to build them at the headwaters of the river system where millions of acre-feet of floodwaters may be stored behind them. These dams will provide for the much-needed flood control in the region and will have an ample supply of water to maintain their power production at the maximum level at all times during the year. Furthermore, by the release of their floodwaters during the low flow period of the river they can sustain the power production of the dams below them such as Bonneville and McNary that have no storage facilities. Dams built at the headwaters of the river system will in no way interfere with the salmon or other fish runs in the river nor will they destroy any long-established fishing locations of the Indians.

There will be no storage of water behind The Dalles Dam and like Bonneville and the other dams on the lower Columbia River its power production will be limited by the level of flow in the river. Its utility does not extend beyond that of power production for its geographical position makes it of little value for irrigation. True, it will include a larger and better boat lock than the one now in use at The Dalles, Oreg., but the present boat lock there can be improved just as well with only a minute fraction of the cost of The Dalles Dam. The inclusion of a boat lock in the dam for the enhancement of the slow and antiquated method of river barge transportation can in no economic sense be used as an argument for the necessity of the entire structure.

Finally, in view of the recent reports from the Atomic Energy Commission, it is not at all unlikely that the use of atomic energy for the production of electrical power will make The Dalles Dam as well as many other dams on the Columbia River obsolete within a comparatively short period of time.

The Yakima Tribe of Indians is of the definite opinion that this Congress should recognize that The Dalles lock and dam is not essential to the industrial development of the Northwest and that it is necessary to save every cent of money possible under the conditions now existing in this country. While it is true that some $4,000,000 may be wasted it is more sensible for the Congress to recognize its mistake than to proceed blindly and spend hundreds of millions of dollars for a project that is neither ethically nor economically sound.

The Yakima Tribe of Indians again wishes to impress upon this committee that it does not want to dispose of its fishing rights at Celilo Falls on the Columbia River. The fishing locations of the tribe at the falls play such an important role in its customs and religion that their intrinsic value is far beyond any monetary consideration. The Yakima Tribe does not wish to be compensated for these rights and urges the construction of the Dalles lock and dam be stopped for the reasons herein set forth. It is not too late to stop the construction of this project. The Yakima Tribe urges this committee to carefully study the ultimate effects of this project and to fully recognize its treaty rights.

Respectfully submitted.

THE YAKIMA TRIBE OF INDIANS,
By ALEX SALUSKIN,
WATRON FOTRES,
Authorized Delegates.

STATEMENT OF ALEX SALUSKIN, CHAIRMAN, YAKIMA TRIBAL COUNCIL

OPPOSITION TO DALLES LOCK AND DAM

Mr. SALUSKIN. Honorable Chairman and honorable members of the committee, my name is Alex Saluskin. I am chairman of the Yakima Tribal Council, Yakima Indian Tribe, Washington.

I am thankful for this opportunity that you have given me on behalf of my people to appear and present our protest against the construction of the Dalles Dam on the Columbia River, 12 miles below our most valuable fisheries at Celilo Falls.

FISHING RIGHTS UNDER TREATY OF 1855

During the great treaty council meeting at Camp Walla Walla in Washington Territory in 1855, the chiefs and headmen of many different tribes listened to the offers made by Territorial Governor Isaac I. Stevens. He told the chiefs that if they agreed to the terms of the treaty, that he, Governor Isaac I. Stevens, would see to it that the Great White Father would honor the provisions of that treaty by the United States Government.

One of the greatest concerns the chiefs had was their fisheries. Governor Isaac I. Stevens stated many times that the usual and accustomed fishing locations would be reserved to the tribes and lands of the Confederated Tribes of the Yakima Nation, and that the Great White Father would preserve and protect the agreement if they, the chiefs, would sign the treaty prepared by the representatives of the United States Government.

The chiefs and headmen, representing many tribes who lived along the great Columbia River, understood that under the terms of the treaty the Government would protect their usual and accustomed fishing locations forever. The greatest of these fisheries was the Celilo

Falls. Their understanding was that these fisheries would be used in the same way they had always been used by the Confederated Tribes of the Yakima Nation. At the time of the treaty the Government was only interested in land for the white settlers to build homes on and raise their family, crops and stock.

The chiefs signed the treaty and ceded a vast territory of land to the Government feeling that their greatest property, the usual and accustomed fisheries, located within the ceded territory would be reserved to them and that the United States Government would protect it forever.

CELILO FALLS FISHERIES

Celilo Falls fisheries was and still is the greatest and the most valuable one. Today it is threatened to be destroyed by the construction of the Dalles Dam.

I am now asking the Congress of the United States not to appropriate any funds for the construction of the Dalles Dam.

1. It will violate the Yakima treaty of June 9, 1855, which was ratified by United States Senate. The same Senate you honorable gentlemen now represent. The Army engineers have held hearings at the local area. We have submitted our protests, and appeared before the hearings believing that since the Army engineers were representing the Federal Government our protests would be reviewed by Congress.

PROTESTS MADE TO CONGRESS

In consideration of the enabling act of 1950 to authorize the Dalles Dam, our tribe was not notified and given an opportunity to appear before Congress to present our views on the pending legislation. Congress has not arbitrarily passed the legislation, but our protests made before the hearings held by the Army engineers were never presented to Congress. If Congress had heard our protest and given us opportunity to be heard, I feel sure that the enabling act would never have passed Congress.

We appeared before the House Committee on May 7, 1951, to protest the destruction of our fisheries at Celilo Falls, and that committee heeded our protest and refused to appropriate money for the dam. However, an appropriation was made by the United States Senate, without our having had an opportunity to appear and make a protest.

I feel confident that our treaty of 1855 will not be threatened by the construction of the Dalles Dam. The United States Government is one of the greatest nations and tells all the nations throughout the world to observe treaties and agreements with other nations.

Will that same Nation abrogate the treaties entered into with our chiefs without the consent of the Yakima Tribe or one of the parties to that treaty?

We have observed the agreements and treaties entered into with your representative, Governor Isaac I. Stevens. We hope that the Government of the United States will do likewise.

I pray to Congress, as a citizen of the United States and chairman of the Confederated Tribes of the Yakima Nation, for reconsideration of the appropriation for construction of the Dalles Dam and disapprove the request for appropriation of any funds by this Eighty-second Congress. Our young men have served in World Wars I and

II to protect the treaties and principles of this country and the Constitution of the United States which protects my person and my vested right. I pray that our treaty will also be honored and protected.

Gentlemen, I would like at this time to read a statement written for submission to the committe at this hearing by the vice chairman of the general council of the Confederated Tribes and Bands of the Yakima Indian Nation.

Senator ELLENDER. All right, proceed, sir.

Mr. SALUSKIN (reading): "A red man speaks: I am Kiutus Jim, vice chairman of the general council of the Confederated Tribes and Bands of the Yakima Indian Nation which was formed under the treaty of June 9, 1855, with the United States Government. Many of our Indian boys are fighting and dying for the rights and treaties of foreign countries and for the protection of the rights of the people of those countries. I, myself, am a veteran of the First World War. I was gassed and wounded in that war. I have a boy now overseas in Korea and another that is reporting for the fighting forces the 19th of this month of May. I will soon have two more boys that will be ready to serve our country. I wonder for what purpose we serve when at home our treaty of June 9, 1855, is given so little consideration that the Government goes ahead and builds dams in violation of our treaty rights on the Columbia River destroying forever our fisheries. We, too, have a treaty and we believe our treaty is as valuable as the treaty rights and the rights of the peoples in other countries."

In addition to that, I would like to make a comment with regard to my own family. My son, William Saluskin, was wounded in Africa in the initial campaign against our enemies. He was one of the first 125 casualties that went to Walter Reed Hospital.

Another boy named Joe Saluskin was in the Air Corps. He served in connection with guarding the Gulf of Mexico and the Panama Canal. I have another boy who served in the Marine Corps. Also my daughter served in the WACS, the Air Corps.

NUMBER OF DAMS IN NORTHWEST

Senator ELLENDER. Do you know how many dams have been built in the Northwest?

Mr. SALUSKIN. Do you mean in the Columbia River?

Senator ELLENDER. Yes.

Mr. SALUSKIN. The first dam that was built was Grand Coulee, which is one of the largest dams there is. The second dam that was constructed was Bonneville Dam, which is below The Dalles Dam. I don't know what the mileage is there. Then the next was the Rock Island Dam, and then came McNary Dam. Chief Joseph Dam is now under construction.

Senator ELLENDER. In the erection of any of these dams, were any treaty rights violated?

Mr. SALUSKIN. Well, not directly. In some instances the violations were most insignificant.

Senator ELLENDER. Was there any objection on the part of the tribes of the Yakima Indian Nation made in connection with The Dalles?

Mr. SALUSKIN. We have always objected to the construction of high dams.

Senator ELLENDER. I see, but this is the only one as to which the damage will be very much and to which you positively object?

Mr. SALUSKIN. If this dam is constructed the last of the fisheries of the Indian people will be taken away.

Senator ELLENDER. I see.

Mr. SIMMONS. More importantly, if I may interrupt, Senator, this will completely flood out all of these fishing sites.

Senator ELLENDER. I understand. You consider this a most serious violation of the treaty of 1855?

Mr. SIMMONS. Absolutely. We take the position that they can do no work on the river until, under the fifth amendment, due process is followed.

INDIAN POPULATION

Senator ELLENDER. How many are there left of the Yakima Tribe, how many Indians approximately?

Mr. SALUSKIN. The population is now recorded, I think, at around 3,850.

Senator ELLENDER. Has the number been increasing, or have you been holding on?

Mr. SALUSKIN. Since the highly developed medical service was extended to our people, our newborn are generally surviving. There are few child deaths, and most of those born have a chance to live.

Senator KNOWLAND. May I say that very few witnesses have come before this committee or before any other committee on which I have served that have had a finer contribution of sons and daughters to the armed services of the country than this witness mentioned in his testimony.

Senator ELLENDER. Thank you very much, Mr. Saluskin.

Senator CAIN. May I ask the witness a question?

Senator ELLENDER. Yes.

Senator CAIN. Mr. Saluskin, what was the approximate population of the Yakima Nation back in 1855 when the Indians and the Government of the United States first signed a treaty?

Mr. SALUSKIN. The record of that is in the minutes of the discussion of Isaac I. Stevens. I just do not recall what the figures are.

Senator CAIN. Can you give us, from your own memory, the highest population figure for the Yakima Indians? That question relates to one that was previously asked you by the Senator from Louisiana, Mr. Ellender. You have said that there are about 3,850 Indians now who belong to the Yakima Nation. What was the high figure? Was it, for example, 25,000, or might it have been 50,000?

Mr. SALUSKIN. I believe it is under 30,000. It must have been around 26,000 or 25,000 because, if I remember the figure correctly, that is just about what it said.

Senator CAIN. What became of the rest of them?

Mr. SALUSKIN. There was a considerable number of deaths from smallpox and tuberculosis before there was any highly developed medical science and hospitals for these Indians.

Senator CAIN. But your Indian legend has it that in the day of your greatest era of prosperity and strength there were probably as many as 26,000?

Mr. SALUSKIN. Yes.

Senator CAIN. That is, 26,000 Yakima Indians?
Mr. SALUSKIN. Yes.

IMPORTANCE OF FISHING INDUSTRY

Senator CAIN. With reference to the present day, what percentage of the population of the Yakima Nation depends entirely or in part for their livelihood on the fishing resource which you believe will be totally destroyed if The Dalles is fully constructed?

Mr. SALUSKIN. Well, at the present time about 66 percent of our people utilize the economic gains through their fishing and also obtain their subsistence in that way.

Senator CAIN. Did you say 66 percent of approximately 3,850 Indians depend in whole or in part on the continuance of the prevailing fishing rights?

Mr. SALUSKIN. Yes. That is the approximation. About one-third of our people are pretty well situated by having good lands. The rest are landless Indians and they depend solely on what they can get from fishing.

Senator CAIN. Will you give us your best opinion, Mr. Saluskin, as to how the two-thirds of your total population will exist if those fishing rights and resources now available to them are destroyed in one way or another?

Mr. SALUSKIN. Well, it will take a long time before they can adjust themselves and become qualified to hold down positions and earn sufficient money to take care of their families. On the other hand, a good fishing place down at Celilo Falls will bring from $1,800 to $2,000 for about 3 weeks of work. During the other part of that time they hire themselves out as farm laborers in the Yakima Valley and work in hops, beets, picking fruit, and doing other manual labor that is available to them.

Senator CAIN. Mr. Saluskin, did I understand you to say that this is the first time that the Yakima Nation has been officially represented before the Civil Functions Subcommittee of the Senate?

Mr. SALUSKIN. Yes; that is correct.

Senator CAIN. You have noticed the real sincerity and enthusiasm with which this committee has greeted you and Mr. Totus today. Would you tell us, please, for the record, why you have not previously in years gone by—that is, why you or others speaking for the Yakima Nation—have not applied for an opportunity to be heard before this committee?

Mr. SALUSKIN. One reason for that probably is that the old chiefs who headed the tribes did not have any problems as large as the Celilo in order to make a request to be heard before the Senate Appropriations Committee. This is one of our most critical times, we feel. If the dam is constructed, we feel that, since we do not have any program set up to take care of the welfare of these people who are dependent on fishing, men and women and families will have to submit themselves to going on public relief or to being dependent on some public charity. We feel that our young people should learn how to earn their own subsistence, and this is one of their largest providers; that is, at Celilo Falls.

Senator CAIN. Because other problems may arise in the future in which your tribes have a definite interest, I think I speak the mind

of the committee as a whole when I say that anyone who officially represents the Yakima Nation will be made very welcome.

Mr. SALUSKIN. I surely appreciate that.

Senator CAIN. Before this committee you are exercising your constitutional right, as I understand it, to plead your case before the Congress. It has been worth while and constructive to have had your testimony today.

Mr. SALUSKIN. I appreciate your views, Mr. Senator, for this reason: Prior to 1924 the Indians were just the same as prisoners of war. The United States Government saw fit to make us citizens of this country under the act of 1924. Since that time we have learned that, unless we present our own cases before you gentlemen here in Congress, we do not have the political power otherwise to ask anyone to present them for us. Due to the fact, we are here pleading this case for your consideration. Thank you.

Senator ELLENDER. We are glad to have had you, sir.

Mr. SIMMONS. May I call Mr. Watson Totus.

Senator CAIN. Mr. Totus, will you be seated, please.

STATEMENT OF WATSON TOTUS, MEMBER, YAKIMA TRIBAL COUNCIL

OPPOSITION TO DALLES LOCK AND DAM PROJECT

Mr. TOTUS. My name is Watson Totus, member of the Yakima Tribal Council. I am a direct descendent of the Columbia River tribes and chiefs who signed the Yakima Treaty of 1855.

I am protesting the construction of the Dalles Dam. It never should have been authorized by the United States Congress in 1950, and the Eighty-second Congress never should have appropriated $4,000,000 and let the contract for construction in 1952.

DISTINCTION OF CELILO FALLS FISHERIES

I make this statement because this proposed dam violates the Yakima Treaty and threatens to abolish and destroy one of the most historical and scenic natural monuments in the United States. The dam would do irreparable damage to Celilo Falls fisheries, tribal traditions, and religion.

My people fished at Celilo and many other tribal fishing places, both above and below the falls. Even yet many Indians fish here to supplement their subsistence and livelihood. Many white people from all over America and many foreign countries come to our area to view our great natural monument.

Our tribal legends are there. Up to now no one has written about them, but at various places our history is written on boulders and bluffs. These stories tell how our people caught the first salmon; of our great ceremonies; and our prayers of thanks to the Great Spirit and Maker who provided happiness and food.

The religion of Washeat was the tribal religion. The spiritual teacher told the people that salmon was blessed by the Great Maker who made the sky, divided the waters, made the earth, and from it created man who breathed wind from the sky. The Great Maker blessed the water he drank and that which went to the animals and plant life.

The salmon was then made a sacred food second to water in the Yakima tribal "Washeat" religion. All of the tribes along the Columbia Basin worshipped in the same "Washeat" religion.

Up to this day the white people call it the "Pom-Pom religion," and I am one of the leaders of that original religion. I teach my people that (1) water is blessed by God; (2) salmon is blessed by God, and it is the first food that we partake of in the "Washeat" church ceremonies on Sunday, fresh-root festivals, and "first salmon-catch" festivals.

I am now asking Congress to change its mind and not construct The Dalles Dam. It will make the spirits of my dead chief of long past rejoice and will build confidence in my present and future people that our treaties of 1855 are sacred and shall not be abrogated by Congress of the strongest and most religious country of the world, the United States of America.

The spirits of my past chiefs cannot plead for justice. I can only pray, Save Celilo Falls and all it represents. May the Great Spirit bless you all. I have spoken for my people.

Senator ELLENDER. Thank you very much, sir. Are there any questions?

Senator CAIN. Mr. Totus, are you a chief in the Yakima Nation?

Mr. TOTUS. Yes, sir.

Senator CAIN. How do you make your own personal livelihood, Mr. Totus?

Mr. TOTUS. One of them is fishing.

Senator CAIN. You are a fisherman?

Mr. TOTUS. Yes.

Senator CAIN. And your forebears have been fishermen on the Columbia River?

Mr. TOTUS. Yes.

Senator CAIN. What will you do for a living if the fishing industry is destroyed?

Mr. TOTUS. I have a poor education. I cannot go out and do like white people. The only thing my people taught me was fishing and making a living. I don't know what I would do after this thing goes in.

Senator CAIN. You may not be very well educated in the common use of that term, but you are a very proud chief of a very proud nation; and this committee compliments you for your statement and for being privileged to listen to your prayers.

Senator ELLENDER. Thank you very much, Mr. Totus.

Mr. SIMMONS. I will call Dr. Davidson.

STATEMENT OF DR. FREDERICK A. DAVIDSON, ELLENSBURG, WASH.

OPPOSITION TO DALLES LOCK AND DAM

Mr. DAVIDSON. Mr. Chairman and members of the committee, my name is Frederick A. Davidson. I have been employed by the Yakima Nation since October of last year to do research for them both in the biological and the economic capacity. I think I have a number of points that I can make which will emphasize what Mr. Simmons and the two delegates have said before me.

Senator ELLENDER. Will you give us a little of your background, Dr. Davidson?

Dr. DAVIDSON. I am a graduate of the University of Illinois in agriculture. I worked 6 years in the agricultural experiment station, at which time I took advanced work in zoology. I went to the University of Chicago, where I received a Ph. D. degree in zoology. I taught for 2 years at Beloit College, Wis., and was for 14 years with the Bureau of Fisheries, which eventually became the Fish and Wildlife Service. I retired from Government service in 1943.

Senator ELLENDER. Very well, sir.

The Yakima Indians, knowing that I had this experience in the past, employed me; and I am very happy to represent the good, straightforward, honest nation of people who are asking for nothing but the respect of their rights.

Senator CAIN. If the chairman will permit me, Mr. Davidson, how long have you been employed by the Yakima Nation?

Mr. DAVIDSON. Since October of 1951. I have been operating a small farm near Ellensburg, Wash., since 1943, on which I make my living.

The white man builds beautiful temples and cathedrals in which to worship God, but the Indian goes to the natural temples built by God to carry on his worship and religion. Celilo Falls are as sacred to the Yakima Indians as any cherished temple or cathedral is to the white man. It is for this reason that the Yakima tribal chiefs who negotiated the treaty of 1855 insisted that the rights of their people to fish at Celilo Falls be guaranteed them as long as they existed as a nation.

The Yakima Indians do not want to sell their rights to their fisheries. It is true that the United States Government has offered to pay the Yakima Indians for the loss of their fishing locations when the Dalles Dam floods Celilo Falls. It is true that they have been offered a sum of money. The American people feel that they can buy most anything with money. That is not always true.

Celilo Falls play such an important part in the customs and the religion of these people that they do not put any monetary consideration on them at all.

The white man's Bible warns him that he must not sell his birthright for a mess of pottage or else he will be found wanting. Certainly there is no American who would want to sell his citizenship for a sum of money. Yet in reality, gentlemen, you are asking the Yakima Indians to do that very thing when you ask them to sell their rights at Celilo Falls.

The white man has enjoyed privacy, freedom of speech, and freedom of worship and of customs in this country for centuries. I don't need to remind you that he has done that at the expense of the Indians and the Indians' lands.

This is only a very small thing the Indians are asking you to do for them, and I certainly think they deserve some consideration.

ALTERNATE DAM SITE

Now, if the site for the dam that is proposed at The Dalles, Oreg., was the only place they could build a new dam, I still think that it should not be considered above the Indians' rights. However, there

are many locations where the dams can be built on the Columbia River. I would like to call your attention to the fact that every dam that is built on the lower Columbia River is limited by the flow of water. When the river flow goes down, the efficiency of the dams drops to as low as 25 percent.

Grand Coulee Dam is the only practical dam that has ever been built on the Columbia River. Why? Because it stores up its own water to keep its generators operating at maximum capacity the year around. Not only does it do that but it will liberate water during the low-flood period of the river so as to sustain or firm up the power production of the dams in the lower river.

If the engineers and the people of the Northwest really want to develop the Columbia River for power production, let them put the dams back in the headwaters of the river where they will store up millions of acre-feet of floodwaters, where their generators will operate at full capacity the year around, and where the stored water may be liberated to firm up the power of those dams that exist now on the lower river. They are Chief Joseph, Rock Island, McNary, and Bonneville.

When the river flow goes down, Bonneville is like a lame duck in many respects. I think you have seen a windmill operate pumping water, and you know what happens when the wind goes down. There is no pumping. But when the wind reaches storm velocity, you have to shut the wheel off because otherwise it will destroy its own structure. That is what happens in the lower river dams. When the water is flooding, they can produce a tremendous amount of electrical power. When the water flow is down, they are almost helpless.

NORTHWEST POWER NEEDS

What is needed primarily for your power shortage in the Northwest—and there does exist a power shortage when the flow of the river is down for a few months—what should be done would be to provide auxiliary steam power plants which can be built within a matter of months, 2 years at the most, and not 7 years which it is going to take to get the Dalles built.

Just recently, gentlemen, the Bituminous Coal Institute, which is a department of the National Coal Association whose officers are right here in the District of Columbia, advertised that they had perfected a machine which will utilize coal for fuel at a much better efficiency than that of Diesel oils. Here is a picture of a railroad engine that they have developed and have tried out. It is working. They can operate this railroad engine for from $12 to $15 an hour, less than the cost of operating a Diesel engine. If that is true, then that same type of equipment can be put in your auxiliary steam power plants.

Put the steam plants at the centers of industrial development and you will eliminate all of this extra cost of transportation of electrical power. There is where the engineers and others are running into difficulties—the transportation of electricity. Put these steam power plants at the centers of industry for operation during the few months of the year when the power is down, and it will take care of the situation in the Northwest.

Let me call your attention to the fact that the Northwest abounds in coal. If anything should ever happen there that would

create an emergency, you would have your fuel right there, and you will have your equipment which can handle it to produce electrical power.

That is the reason why we feel the Dalles Dam is not necessary. As I said before, we believe that it is ethically and economically not the right thing to do to put the Dalles Dam in.

YAKIMA FISHING RIGHTS

There is one other point I want to make. You may well ask why the Yakima Indian nation has assumed the perogative of coming here and asking you to stop the Dalles Dam. The Yakima Nation is the only Indian nation that can show the right to the use of the fishery at Celilo Falls. The analysis of purchases by the fish buyers which I have been carrying on indicates that the number of Yakima Indians that fish at Celilo Falls represents over 65 percent of the total number of fishermen there. Their catches are over 75 percent of the total catches made at Celilo Falls. So Celilo Falls belongs to the Yakima Indians.

Senator ELLENDER. Over what period of time do they catch these fish?

Mr. DAVIDSON. In the summer. They start early in the spring and carry on until fall.

Senator ELLENDER. What is their market?

Mr. DAVIDSON. The fish buyers buy them. Some of the fish go into the canneries and some of them go to the fresh-fish market.

Senator ELLENDER. Is the fish bought on the spot from the Indians?

Mr. DAVIDSON. Yes; the buyers go to Celilo Falls. The tourists also come out.

Senator ELLENDER. Yes; I have been there myself. I remember seeing the big wheels that are used in catching them.

Mr. DAVIDSON. Celilo Falls, gentlemen, is the Niagara Falls of the West. It is the last natural monument that hasn't been destroyed by the construction of dams. We hope that you will leave it there for us and for tourists to enjoy.

Senator CAIN. Is much of the fish used as a primary article of food and consumed by many of the Yakima tribal families?

Mr. DAVIDSON. Oh, yes. Fish is their primary food, absolutely. They have existed on it for years. As Watson Totus told you, it is a sacred thing to them. It is part of their religion.

Senator ELLENDER. Do they preserve it from season to season?

Mr. DAVIDSON. Yes. They smoke it and dry it. They use it that way. Some of them are canning it. They are trying to include the white man's modern method, but they still prefer the smoked fish.

Senator CAIN. And their diet is generally centered around the fish?

Mr. DAVIDSON. Yes, sir.

Senator CAIN. It is centered around the salmon?

Mr. DAVIDSON. Yes, sir. They also have roots and berries and they do buy other foods as necessary. Primarily, if they have the fish, that is their food. That is what they live on, and that is what they are healthy on.

Senator CAIN. Just as spaghetti, for example, is the basic diet of many an Italian family, so salmon is the basic diet of many a family in the Yakima Tribes?

Mr. DAVIDSON. Yes, as sauerkraut is to the Germans, too.

Thank you, sir.

Senator ELLENDER. Thank you, Mr. Davidson.

Senator CAIN. I have just a couple of questions, please, Mr. Davidson.

INDIAN TREATY OF 1855

What is the status today of the Treaty of 1855 to which you, Mr. Simmons, and Mr. Saluskin and Mr. Totus made rather repeated references?

Mr. DAVIDSON. What is my status?

Senator CAIN. No. What is the status of the Treaty of 1855? Is an attempt being made in some court or before some administrative branch of the Government generally to compromise that treaty or to change it or to amend it in any way?

Mr. DAVIDSON. No, not that I know of, unless Mr. Simmons has any other information. Do you, Mr. Simmons?

Mr. SIMMONS. No. There has been no suit filed at all by the Yakima Tribe.

I might advise the committee of the $4,000,000 that was appropriated at the last session of Congress. The Army has let over $6,000,000 in contracts now, in excess of the $4,000,000. The Guy F. Atkinson Co., one of the big contractors, is now actively engaged in the river at the dam site with dredges and machinery getting ready for the construction of the dam.

Senator CAIN. Permit me because of a lack of background to stay with this treaty question for just a minute. As I understand it, the Indians are of the considered opinion that that treaty that was signed between the Indians and the Federal Government in 1855 is being violated?

Mr. SIMMONS. Absolutely.

Senator CAIN. Through the prevailing intention to construct the Dalles Dam? Is that correct, Mr. Simmons?

Mr. SIMMONS. Absolutely.

I might answer it this way. We take the position legally, and I believe soundly, that any invasion or any action by the Government which will result in the destruction of Indian property rights, even though a public use is involved, without negotiation or settlement or condemnation is illegal.

Now, the Yakima Tribe, however—and I want to impress this point—feels that it is their bounden duty to oppose the construction of the dam. We don't want the dam. The tribe doesn't want the money. They don't want payment. They don't want the dam built. They think that as American citizens it is not sound economically. Furthermore, they want the right to fish which they have had since time immemorial.

Senator KNOWLAND. May I ask a question at that point?

Senator CAIN. Certainly.

Senator KNOWLAND. Did you or the representatives of the Yakima Indians appear either at the time of the authorization of the bill or

the prior appropriation bill? I am frank to say that I have never had this full a discussion of this project.

McNARY DAM LAWSUIT

Mr. SIMMONS. Senator, I am very happy you brought that up. The reason we didn't appear at the time the authorization bill, the Rivers and Harbors Act of 1950, was enacted is that McNary Dam was being constructed and at the request of the Yakima Tribe I instituted a suit in the United States District Court of the Western District of Washington against the contractor of the coffer dam. We tried the case before Judge Griber of the United States district court for several days, and he denied the injunction on the grounds of the doctrine of public necessity.

No appeal was possible at the time for the reason that they had worked around the clock on the coffer dam, and it was 98 percent completed when we tried the suit.

Senator KNOWLAND. You mean that you had a fait accompli?

Mr. SIMMONS. Yes, sir.

The learned judge in his opinion stated that if any actual damage was done as a result of the inundation of the spawning grounds, that would ultimately result in a tremendous reduction of fish available at these fishing locations.

However, in this project the fishing locations where the Indians catch their fish will all be drowned out by the pool formed back of The Dalles Dam. We have not instituted any action seeking to enjoin the United States.

Senator CAIN. Permit me to ask why. It seems to me as a lay person who is not in possession of all of the background that that is the most logical step to not only take today but to have taken at the time the authorization was under discussion.

Mr. SIMMONS. Well, we were very hopeful last year when the House refused to appropriate any more money for the construction of the dam. The same argument was presented to them.

Senator ELLENDER. By whom?

Mr. SIMMONS. By the Yakima committee. I appeared before the House committee.

Senator ELLENDER. Did you appear before the Senate?

Mr. SIMMONS. No, only before the House Committee. You will recall that there was no appearance before the Senate committee last year. We should have appeared, however.

Senator KNOWLAND. It would have been very helpful and enlightening if the appearance had been made a year ago.

Mr. SIMMONS. Yes. Now last year in the last 2 days of the Congress the conferees agreed on $4,000,000. This year the House took the same action, but we didn't make the same mistake. We are here appearing before you and filing briefs in support of our position.

Senator CAIN. Then you do not mind our asking you these questions because as the gentlemen of the committee indicate a lack of present knowledge, so the other members not present today have not had that information.

Mr. SIMMONS. I am glad to have you ask your questions, sir.

APPRAISAL OF FISHERIES VALUE

Senator CAIN. Let us assume by way of argument that, the dam having been started, it is to be completed. Then in the name of fairness and justice we want to know about the compensation that will be granted to the Indians to recompense them for this very major loss.

Mr. SIMMONS. In fairness to the Army, let me say this: Since last year the Army has appointed a committee to ascertain the value of the fisheries. They have called upon the Yakima Tribe. The Yakima Tribe is not interested in negotiating a settlement.

Senator CAIN. We understand that exactly, but we are likewise trying to understand two things, or at least I am.

What steps have or can be taken to determine the validity of the treaty of 1855? Secondly, and not precisely related to that question, what steps can and ought to be taken to make certain that, if the construction is carried to completion, the Yakima Indian Nation will be compensated in a fair and reasonable way?

Mr. SIMMONS. I am very happy, Senator, that you have raised that question. This treaty has been before the Supreme Court of the United States on several occasions, and its validity has been determined and the fishing rights recognized. With the leave of the chairman, I will file a supplemental statement or brief which will thoroughly outline the law on the question and our legal position taken through the years.

(The document referred to follows:)

STATEMENT OF THE YAKIMA TRIBE OF INDIANS, STATE OF WASHINGTON, IN OPPOSITION TO THE CONSTRUCTION OF THE DALLES LOCK AND DAM, THE DALLES, OREG.

The Dalles lock and dam on the Columbia River was authorized in 1950 and has top priority in the budget of the President of the United States. Under the proposed program construction of the Dalles lock and dam would be initiated in the fiscal year 1952. At present the Army is investigating the damsite, diamond drilling test holes, and doing other preliminary work. An effort is now being made to expedite construction of the dam and begin active construction of the dam immediately, conditioned, of course, upon the action taken by this Congress.

The proposed program sets the initial closure date as of August 1955 and the first 2 of the 14 70,000-kilowatt units for power generation are scheduled to be on the line in November 1956. The estimated cost of construction was $18 million based upon a 1951 estimate, however, the actual cost of the lock and dam, it is reliably reported, will be many times this figure.

The construction of this dam is considered a war emergency measure. It is not known to the Yakima Tribe how soon the dam could be completed, providing actual construction of the dam commenced this year, and whether the construction of the dam would be of any material aid to the present war and defense effort.

The Yakima Tribe of Indians in the State of Washington possess very valuable fishing rights in the Columbia River at and adjacent to Celilo Falls, Oreg., which will be completely inundated and destroyed by the construction of the Dalles Dam. These fishing rights annually net members of the Yakima Tribe many thousands of dollars in income, and according to reliable estimates the return from the fishing activities of members of the Yakima Tribe at these locations support some 1,440 members of the Yakima Tribe now residing on the Yakima Indian Reservation, approximately two-fifths of the total membership of the Yakima Tribe.

The value of the fishing rights of the Yakima Tribe at Celilo is tremendous, for which, in the event The Dalles Dam is constructed and these rights destroyed, the United States must foot the bill and compensate the Yakima Tribe for property taken by the United States for use in this project. The Commissioner of Indian Affairs in his memorandum of October 11, 1946, directed to the Chairman of the Pacific Northwest Coordinating Committee, declared:

"The principal surviving Indian fishery is at Celilo Falls. There the annual take of salmon and steelhead by Indians for sale anad home consumption is about 2,500,000 pounds, with a wholesale value of about $375,000. Between Bonneville Dam and Celilo and above Celilo on the Columbia, the Deschutes, the Klickitat, and other tributaries, the Indians take an estimated additional quantity of 900,000 pounds of fish with a value of $135,000 for their subsistence. Formerly they took large quantities of salmon at Kettle Falls and other sites on the upper Columbia River. Exclusive fishing rights on their reservations were confirmed to the Indians by treaties; access to customary fishing sites off the reservations was assured the Indians by the same treaties."

The Yakima Tribe in the complaint in its suit filed in the District Court of the United States States for the Eastern District of Washington against Guy F. Atkinson Co., a Nevada corporation, seeking an injunction to stop the construction of a coffer dam, the first phase of the McNary Dam project in the Columbia River, alleged the value of these fishing rights to be in excess of $20 million, which at that time would substantially agree with the value placed upon these rights by the Commissioner of Indian Affairs.

The Yakima Tribe has consistently taken the position that it is not interested in selling these fishing rights or in losing them, if it can prevent such action. The Yakima Tribe wishes to continue in the possession of these fishing sites for all time in order that its members may always be in a position to obtain their food from the Columbia River and to provide a living for many of its people.

By solemn treaty negotiated between the United States and the Yakima Tribe of Indians of June 9, 1855 (12 Stat. 951), the Yakima Indians ceded to the United States all of their rights, title, and interest in a vast domain, which they had roamed over and used as their own since time immemorial, including fishing locations in the Columbia River below the Bonneville Dam to and including fishing sites in the Willamette River and up the Columbia River many miles above the proposed site of The Dalles Dam.

In consideration of these grants by the Yakima Tribe to the United States, a reservation was established and certain additional emoluments granted the Indians. The only grant of any consequence to the Indians, without which the Indians could not have survived, is contained in article III of the Yakima Treaty, which reads as follows:

"The exclusive right of taking fish in all of the streams, where running through or bordering said reservation, is further secured to said Confederated Tribes and bands of Indians, as also the right of taking fish at all usual and accustomed places, in common with the citizens of the Territory, and of erecting temporary buildings for curing them. * * *"

This provision in the treaty granting the Yakima Tribe the exclusive right of taking fish on the reservations and a right in common with the citizens of the United States of taking fish at their usual and accustomed places off the reservation, was clearly intended by Congress as a stop-gap embodied in solemn law to prevent a natural tendency of a dominant group to wear away and diminish the rights of the weaker group. It gave protection to the Yakima Indians to exclusively fish on the reservation and a right in common with the citizens of the territory to fish off the reservation. In addition, the Yakimas retained a prior easement of ingress and egress to and from their old accustomed fishing stations.

Conclusive proof of this contention is found in the record of proceedings of the council meeting in the Walla Walla Valley, then the Territory of Washington, during May and June of 1855, when Governor Stevens negotiated these treaties for the United States. Perusal of this amazing document, which is found in the record of the case of *Tulee* v. *State of Washington* (62 S. Ct. 862) discloses that Governor Stevens assured the headmen of these Indian tribes time and time again that they would not be disturbed in their fishing rights in the Columbia River. On June 9, 1855, Governor stevens stated to the Indians:

"In the paper for the Yakimas we have included the tribes who acknowledge Kam-i-ah-kan for their head chief. The Piscouse, the Swan-wap-um and

Palouse, the Yakimas, and all the bands on the Columbia below the Walla Walla down to the White Salmon River. They have their reservation and fishing stations, which they well know and which I understand is satisfactory.

"You will not be called according to the paper to move on the reservation for 2 or 3 years; then is secured to you your right to fish, to get roots and berries, and to kill game; then your payments are secured to you as agreed; then your schools, your shops, and physicians and other things we have promised are secured; then the salaries, the houses and the 10-acre farms of your chiefs are secured to him."

And further on the same day, Governor Stevens emphasizes the right of the Yakima Indians to fish without interference on the reservation and at the old and accustomed fishing places in the Columbia River, stating to the Indians at this Council:

"I will ask for Looking Glass whether he has been told of our council. Looking Glass knows that in this reservation settlers cannot go, that he can graze his cattle outside of the reservation on lands not claimed by settlers, that he can fish at any of the fishing stations. * * *"

The Supreme Court of the United States in the Tulee litigation (62 S. Ct. 862, 864) in restraining and permanently enjoining the State of Washington from charging the Yakima Indians license fees for fishing at their usual and accustomed stations, considered the report of the council proceedings of great importance in arriving at its decision and stated in the opinion.

"From the report set out in the record before us of the proceedings in the long council at which the treaty agreement was reached, we are impressed by the strong desire the Indians had to retain the right to hunt and fish in accordance with the immemorial customs of their tribes. It is our responsibility to see that the terms of the treaty are carried out so far as possible, in accordance with the meaning they were understood to have by the tribal representatives in the council and in a spirit which generously recognizes the full obligation of this Nation to protect the interests of a dependent people. (*United States* v. *Kamama*, 118 U. S. 375, 384, 6 S. Ct. 1109, 114, 30 L. Ed. 228; *Seufert Bros. Co.* v. *United States supra*, 249 U. S., pp. 198, 199, 39 S. Ct. p. 265, 63 L. Ed. 555.)"

Further in the Tulee decision the Supreme Court stated:

"In determining the scope of the reserved rights of hunting and fishing, we must not give the treaty the narrowest construction it will bear. In *United States* v. *Winans* (198 U. S. 371), this court held that, despite the phrase 'in common with citizens of the territory,' article III conferred upon the Yakimas continuing rights beyond those which other citizens may enjoy, to fish at their 'usual and accustomed places' in the ceded area; and in *Seufert Bros. Co.* v. *United States* (249 U. S. 194), a similar conclusion was reached even with respect to places outside the ceded area."

It is a matter of common knowledge that very few fish were caught on the reservations proper; even at the time of the treaty all of the major fishing activities of all Indian tribes of the States of Washington and Oregon were located on the Columbia River. In the Lewis and Clark journals (1805–8) it is stated that fishing activities of these Indians were observed by these pioneers as early as 1855 at Cascade Falls and other sites on the Columbia River. Every fishing season the Indians from all tribes located in the great Northwest migrated to their usual and accumtomed fishing places and there secured their food supply for the coming winter months.

To quote from the Lewis and Clark journals, volume 3, pages 153–155:

"The number of Indians within the Dalles Mission is reckoned at about 2,000; in but few of these, however, has any symptom of reform shown itself. They frequent the three great salmon fisheries of the Columbia, The Dalles, Cascades, and Chutes and few were found at a salmon fishery about 25 miles up the Chutes River."

In the case of *United States* v. *Winans* (198 U. S. 371–381 (25 Sup. Ct. 662)), decided May 15, 1905, the Court held that the Yakima Indians had a right in real property and an easement for certain express purposes, in and to their usual and accustomed fishing places in the Columbia River. In the language of the Court:

"The right to resort to the fishing places in controversy was a part of larger rights possessed by the Indians, upon the exercise of which there was not a

shadow of impediment, and which were not much less necessary to the existence of the Indians than the atmosphere they breathed. New conditions came into existence, to which these rights had to be accommodated. Only a limitation of them, however, was necessary and intended, not a taking away. *In other words, the treaty was not a grant of rights to the Indians, but a grant of rights from them—a reservation of these not granted.* And the form of the instrument and its language was adapted to that purpose. Reservations were not of particular parcels of land, and could not be expressed in deeds as dealings between private individuals.

"The reservations were in large areas of territory and the negotiations were with the tribe. They reserved rights, however, to every individual Indian, as though named therein. They imposed a servitude upon every piece of land as though described therein. There was an exclusive right of fishing reserved within certain boundaries reserved 'in common with citizens of the Territory.' As a mere right, it was not exclusive in the Indians. Citizens might share it, but the Indians were secured in its enjoyment by a special provision of means for its exercise. They were given 'the right of taking fish at all usual and accustomed places' and the right 'of erecting temporary buildings for curing them.' The contingency of the future ownership of the lands therefore, was foreseen and provided for—in other words, the Indians were given a right in the land—the right of crossing it to the river—the right to occupy it to the extent and for the purpose mentioned. No other conclusion would give effect to the treaty. *And the right was intended to be continuing against the United States and its grantees as well as against the State and its grantees.*" [Italics supplied.]

While the fee to the land itself may be in the State of Washington or in some individual who owns land on the banks of the river, the easement right of occupancy and use of this land to the extent and for the purposes mentioned in the treaty, namely, the right of taking fish out of the Columbia River at this particular location, was held in trust at the time of the treaty of June 9, 1855, by the United States for the use and benefit of the Yakima Indians. The United States has, since the date of the treaty, and still does hold this easement in trust for the use and benefit of the Yakima Indians.

The proposed Dalles Dam will flood out and destroy in its entirety the most valuable fishing locations in the continental United States located off Celilo, Oreg. These locations are of tremendous value to the Yakima and other Indians living near the Columbia River. The fish taken from these locations provide livelihood for several thousand Indians and their families annually.

An examination of the commercial catch records of the State of Oregon and the State of Washington discloses that there was taken by dip bag nets in the Celilo Falls area for the 8-year period (1936–43), inclusive, an annual average of 2,155,123 pounds of salmon, sturgeon, and shad, being an annual value to the fishermen of $250,760.29.

In addition to records of commercial sales the United States Indian Service on July 22, 1942, estimated that approximately 1,281,045 pounds of fish were annually caught and consumed by Indians for subsistence purposes. The value of fish used for subsistence is placed at $134,097.25.

The total average annual value of the Indian fishery of the Celilo Falls area is, therefore, considered to be $384,857.54 up to and including the year 1943. Today the annual value, due to inflated prices, has more than doubled.

In the suit of the Yakima Tribe against the contractor of the first phase of the McNary Dam project, the Yakima Tribe alleged:

"That from time immemorial the Indians of the Yakima Indian Tribe were accustomed to fish in the Columbia River from Big Eddy to and including Celilo Falls on the following described publim domain islands in the Columbia River:

"Public domain islands in Columbia River, Big Eddy to Celilo Falls

"Island number and plat	Subdivision lot	Section	Township	Range	State	Name
			2 N–13 E OREGON			
1	4	36	2 N	13 E	Oregon	Big Lone Pine Island.
2	5	36	2 N	13 E	do	Little Lone Pine Island.
			2 N–13 E WASHINGTON			
3	7	36	2 N	13 E	Washington	Sturgeon Islands.
4	8	36	2 N	13 E	do	Do.
			2 N–14 E OREGON			
5	9	30	2 N	14 E	Oregon	Louise Island.
6	7	30	2 N	14 E	do	Wyam Island.
7	6	30	2 N	14 E	do	Wasco Island.
8	4	29	2 N	14 E	do	North Long Island.
8	4	30	2 N	14 E	do	North Long (2 sections).
9	5	29	2 N	14 E	do	South Long Island.
9	5	30	2 N	14 E	do	South Long (2 sections).
10	8	30	2 N	14 E	do	Grave Island.
11	3	29	2 N	14 E	do	Little Brook Island.
			2 N–15 E OREGON			
12	2	17	2 N	15 E	Oregon	Little Ahteen Island.
13	9	20	2 N	15 E	do	Chief Island.
14	6	20	2 N	15 E	do	Old Lady Chinook Island.
15	7	20	2 N	15 E	do	Big Ahteen Island.
16	5	20	2 N	15 E	do	Star Island.
17	8	20	2 N	15 E	do	Standing Rock Island.
18	10	20	2 N	15 E	do	Point Island.
			2 N–15 E WASHINGTON			
19	4	19	2 N	15 E	Washington	Kiska or Skinpeh Island.
19	6	19	2 N	15 E	do	Considered part of above.
20	7	19	2 N	15 E	do	Big Island.
21	5	18	2 N	15 E	do	Walla-Walla-pa Island.
21	5	19	2 N	15 E	do	Walla-Walla-pa (2 sections).
22	3	19	2 N	15 E	do	No-so-Pama Island.
23	2	19	2 N	15 E	do	No name.
24	1	19	2 N	15 E	do	Do.

Not shown is a Memaloose I'd. (Cemetery) W. Rabbit I'd. Peninsula. This was previously surveyed and withdrawn.

"That the above-described fishing locations from time immemorial and prior to the treaty of June 9, 1855, and continuously since June 9, 1855, to and including the present, have been the usual and accustomed fishing places of the Yakima Indians."

At the trial of the case the defendant, who was represented by an Assistant Attorney General of the United States, admitted the truth of these allegations contained in the complaint.

The Congress of the United States has generally authorized the construction of the Dalles lock and dam, but has failed to recognize or take into account the rights of the Yakima Tribe guaranteed to them by article III of the treaty of June 9, 1855 (12 Stat. 951). Nowhere in any act of Congress has Congress authorized, condoned, or directed any agent, officer, or employee of the United States to do any act that will destroy or damage the rights of the Yakima Tribe of Indians guaranteed to them by the treaty of June 9, 1855. Unless and until this Congress, or some subsequent Congress, does so direct the officers, employees or agents of the United States to enter upon a course of conduct

which will tend to damage or destroy the rights of the Yakima Tribe of Indians, the United States will be taking property of the Yakima Tribe without due process of law, and the Yakima Tribe certainly has a legal right to enjoin the destruction of its property even by the United States and its agents.

It is the belief of the Yakima Tribe that this Congress will take action by negotiation or by special legislation to adequately protect the property rights of the Yakima Tribe and to adequately compensate the Yakima Tribe for such rights in the event the Dalles lock and dam are constructed.

The moment construction of the Dalles lock and dam begins it means the beginning of complete destruction of all these valuable fishing rights of the Yakima Tribe located in the Columbia River, for the reason the Dalles dam will completely inundate these fishing sites and make them valueless.

The Yakima Tribe first, last, and always opposes the construction of the Dalles lock and dam in the Columbia River and believes that sufficient electrical energy can be developed at other locations which will not damage the fish runs in the Columbia more than such runs have already been damaged by the construction and operation of the Bonneville, Grand Coulee, and McNary Dams; second, the Yakima Tribe is confident that in the event this Congress does appropriate moneys for the construction of the Dalles dam that legislation will be provided which will adequately compensate the Yakima Tribe for the destruction by the United States of its fishing rights in the Columbia River.

Respectfully submitted.

KENNETH R. L. SIMMONS,
Yakima Tribal Attorney.

PROGRESS OF CONSTRUCTION

Senator KNOWLAND. How much has actually been constructed? Are they moving in equipment or has any concrete been poured?

Mr. SIMMONS. No concrete has been poured. They have dredges in there now dredging out for the cofferdam. They have diamond-drilled the place and have determined the dam site and the foundations, and so forth.

Mr. DAVIDSON. Nothing has been done in the way of construction.

Mr. SIMMONS. No construction has been done as yet.

Mr. DAVIDSON. There has simply been preliminary work done. They have blasted a few rocks there.

Senator CAIN. Let me direct a question at both of you gentlemen. As I understand it, the Civil Functions Subcommittee of the Senate beginning in late June 1951, took this question of The Dalles Dam under advisement.

Mr. SIMMONS. That is right.

Senator CAIN. It was on the 16th of October that the conference report included an agreement on the sum of $4,000,000. How did it come about that after it was public knowledge in late June or early July that the Senate committee was giving consideration to The Dalles project that one or both of you gentlemen, together with Mr. Saluskin and Mr. Totus or other duly appointed representatives of the Yakima tribes, did not get in touch with the Senate Subcommittee on Civil Functions?

Mr. SIMMONS. I can answer that better than Dr. Davidson. We felt that it was not necessary at the time. It was our mistake. We should have been here and explained the situation.

Senator CAIN. In a pure matter of judgment, it was your opinion that the Senate was not going to override the action taken by the House?

Mr. SIMMONS. That was the position we took, and we were mistaken.

Senator ELLENDER. As I remember, it was very close.

Mr. SIMMONS. That is right.

Senator ELLENDER. I was on the committee, and if I had known what I know now, my vote might have been different.

Mr. DAVIDSON. That is why we are appealing to you.

Senator ELLENDER. I am surprised that the interested parties did not present their views to Congress before now, especially the Senate, I know you presented the matter to the House and did a pretty good job there. Of course, it may be that we should have read those hearings. As you know, we have quite a bit of work, and I did not know of any serious opposition.

Mr. DAVIDSON. The Engineers definitely guided it that way. I cannot help but say that. Of course, naturally, you cannot blame them. Also it has been the general opinion of the Department of the Interior that there is not going to be any serious damage as a result of The Dalles Dam. We do not like that at all.

Senator CAIN. Let me suggest to you, Mr. Davidson, that that was a matter of the responsibility, it seems to me, of the Senate committee unrelated to any arguments which the Army Engineers did not offer covering the attitude of the Indian tribes. I think it would not have been proper for the Army Engineers to have initiated such conversations. It would be my view that it was more for the members of the committee to elicit such information as they sought from the Army Engineers.

Mr. DAVIDSON. Of course, I was not present at that time.

Senator CAIN. I had just one or two other questions, if you please.

OFFERS MADE TO INDIANS

Mr. Simmons mentioned a worth figure of about $20,000,000 early in his testimony. You, Mr. Davidson, suggested that offers had been made to the Indians in which the Indians were not interested. You pointed out that they simply were not interested in any offer because the Indians want to maintain their historic treaty rights.

Mr. DAVIDSON. That is right.

Senator CAIN. But who made the offers in question and what have those offers been up to this time in terms of dollars?

Mr. DAVIDSON. Mr. Othus, who represented the Army Engineers in the negotiations, has not made any concrete offer. He merely suggested that we get together and, in fact, he is waiting for me to furnish him with some of the information that I have on the evaluation of the Indian fishery. But we have no way of evaluating it except that the State of Oregon has done that for us. In fact, I cannot see any other way of evaluating the fishery. The State has done a very good job, and we are willing to abide by that.

Senator CAIN. You have mentioned that the Army Engineers are presently looking into the matter of what just compensation would amount to in terms of dollars; is that correct?

Mr. DAVIDSON. Yes.

Senator KNOWLAND. Mr. Chairman, if the Senator will pardon an interruption, I think that in the interests of having a full record on the situation it should be pointed out that it has just been called to my attention by the clerk of the committee that on page 1424 of the civil functions hearings last year the following appears: This is under the

rivers and harbors program, The Dalles Dam project, Oregon, Indian fishing claims:

Senator CORDON. I ask that a letter addressed to me and signed by General Chorpening with respect to certain Indian fishing claims that arise as a result of The Dalles Dam project be placed in the record following the statement of Secretary Chapman.

Chairman MCKELLAR. Without objection, it is so ordered.

(The material referred to is as follows:)

Then there appears a letter addressed to Senator Cordon from General Chorpening. So that at least was in the printed record of the hearings.

Senator CAIN. Mr. Chairman, I would like to say for the record that the Senator from Washington supported that appropriation of $4,000,000 for The Dalles Dam last year. I was probably derelict in my own duty in not having undertaken some research. I was, however, not as well informed at the time of that vote as I have been informed by you gentlemen this afternoon, which is merely to say that there is a terrific virtue in personal appearances by witnesses who wish to plead a particular case before the appropriate committee of the Congress. I may, after all of the information is in front of me, decide to vote to continue The Dalles Dam. I simply don't know at this time. But the very least I shall be satisfied with, even though I were to support a further appropriation, is to make absolutely certain that insofar as dollars can compensate anyone for a historic right and resource, I would be satisfied with nothing other than a completely fair treatment dollarwise of that distinguished Yakima tribal nation.

Senator ELLENDER. Are there any further questions?

If not, thank you very much, gentlemen.

Mr. SIMMONS. We are very grateful to all of you gentlemen. We appreciate the oportunity of appearing before you, I am sure.

NOYO RIVER CHANNEL, CALIF.

Senator KNOWLAND. Mr. Chairman, I have several other letters which I would like to place in the record, three of them dealing with the Noyo Harbor project.

(The letters referred to follow:)

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, April 29, 1952.

Hon. WILLIAM F. KNOWLAND,
United States Senate, Washington, D. C.

DEAR SENATOR KNOWLAND: Reference is made to our previous correspondence concerning the need for maintaining the navigation channel at Noyo Harbor, Calif.

I am pleased to advise you that funds in an amount of $120,000 were recently allotted to the division engineer of the South Pacific division for the performance of dredging, including the removal of rocks and boulders within the channel limits of Noyo River. You may be sure that the channel maintenance work at this locality will be completed at the earliest practicable date.

Sincerely yours,

C. H. CHORPENING,
Brigadier General, USA,
Assistant Chief of Engineers
for Civil Works.

NOYO HARBOR DISTRICT,
Fort Bragg, Calif., January 21, 1952.

Hon. WILLIAM F. KNOWLAND,
Senate Office Building, Washington, D. C.

HONORABLE SIR: Please find enclosed, a copy of a comprehensive report of the present and future development of the Noyo area.

As a result of recent heavy storms, a considerable amount of fill, logs, and other debris have created a dangerous hazard in the Noyo River channel, and also have eliminated mooring space for approximately 25 boats. Between the location of the old Noyo Bridge and the mouth of the Noyo River, bottom is visible, halfway across, during half tide.

It is feared that if the above-mentioned conditions are allowed to exist, it will greatly impair the fishing industry at Noyo during the forthcoming fishing season. Therefore the Noyo Harbor district takes this means to request your aid toward having the existing maintained channel of the Noyo River dredged before the forthcoming fishing season begins.

Very truly yours.

NOYO HARBOR DISTRICT,
VERNON L. HANSON,
Secretary.

FORT BRAGG CHAMBER OF COMMERCE,
Fort Bragg, Calif., May 12, 1951.

Senator WILLIAM F. KNOWLAND,
Senate Office Building,
Washington, D. C.

DEAR SENATOR: We have hereby prepared a summary of lives lost and property damaged since the Noyo breakwater was authorized by Congress. When we talked with Mr. George Wilson in your office on May 4 it was his opinion that this would help you considerably when this matter came before the Senate committee.

There have been 17 lives lost since 1943. Twelve of them are charged directly to the lack of a breakwater, and the other five indirectly. By indirectly we mean that boats were fishing off our harbor when storms came up and closed the mouth of Noyo. They then had to try and make safe entrance either north or south of us, and they lost their boats and lives in this attempt. It is over 100 miles to safe harbor in either direction.

Value of boats lost and cost of repairs to boats damaged during this period amounts to $265,000. Damage to boats inside the harbor and to shoreside installations of the companies has amounted to $175,000. This is caused by seas entering the river.

We hope that these figures along with the brief we left in your office will stress the need strong enough to get something started on this project this year.

Respectfully yours,

RAY E. WELSH,
Chairman, Noyo Harbor Committee.

DREDGING OF SANTA BARBARA HARBOR, CALIF.

Senator KNOWLAND. I have a letter from the mayor of Santa Barbara, Calif., dealing with the Santa Barbara Harbor situation. I have also a letter from the Army engineers addressed to me dealing with that same subject.

(The documents referred to follow:)

CITY OF SANTA BARBARA, CALIF.,
February 21, 1952.

Hon. WILLIAM F. KNOWLAND,
United States Senator, Senate Office Building,
Washington, D. C.

DEAR SENATOR KNOWLAND: In the early 1930's a breakwater was constructed in the city of Santa Barbara, at a cost of approximately $770,000, for the purpose of providing a safer anchorage for commercial vessels. This breakwater was constructed with Federal approval.

At the time of construction, engineers of national reputation assured the people of the city of Santa Barbara that there would be no interference with the littoral flow of sand, and that the cost of maintaining the harbor would be negligible. However, as soon as the breakwater was completed it was found that it prevented the littoral drift of sand from the north to the south, with the result that the sand which had formerly been carried to our beaches was caught behind the breakwater, drifting around the end of the breakwater into the harbor, making a large portion of the area enclosed within the breakwater unusable, and also resulting in an almost total destruction of the public beaches within the city limits of Santa Barbara, southerly from the breakwater, and the beaches within the county of Santa Barbara southeasterly from the city to the Ventura County line.

Because of this situation, the matter was called to the attention of the Corps of Engineers, United States Army, Los Angeles district, in 1933 and 1934, with the result that the Federal Government, under the direction of the United States Army Engineers, dredged and cleaned out the harbor in 1935.

By the fall of the year 1937, the harbor was again in bad condition, the beaches were further denuded by the lack of sand by reason of the interference of the littoral flow around the breakwater, and the Corps of Engineers, United States Army, again dredged the harbor under a plan proposed by Col. Edwin C. Kelton, then district engineer of the United States Army Engineers of Los Angeles, in which the city contributed $25,000 and the county $25,000, for the purpose of carrying the sand from the harbor area to the beaches southeasterly of the city, and it was understood between the parties that this dredging would continue until some permanent solution of the problem could be devised and installed.

Dredging was again done in 1940, 1942, 1945, 1947, and 1949, and it was planned that the harbor would again be dredged in June of 1951, under the previous arrangement of contributions by the city and county of $25,000 each, to carry the sand from the harbor area to the beaches southeasterly of the city.

However, on October 12, 1950, W. D. Luplow, colonel, Corps of Engineers, district engineer, Los Angeles district, wrote as follows:

"Federal funds for the fiscal year 1951 are being curtailed and civil works deferred. Included in the curtailment were Federal funds for maintenance dredging at Santa Barbara Harbor, which were revoked by higher authority on October 5, 1950."

As a result of the failure to dredge the harbor in 1951, sand has accumulated within the breakwater to such an extent that the Commandant of the Eleventh Naval District has informed Lt. Comdr. Paul O. Backman, officer in charge, United States Naval Reserve Armory, that appropriate action must be taken to relocate the Naval Reserve training vessel U. S. S. *PCS 1244*, confined to the Naval Reserve berthing facility within Santa Barbara Harbor, unless maintenance dredging is accomplished, and the situation is now so acute, and the property damage so imminent, by reason of the failure to dredge the harbor, and replenish the beaches, that by public demand the city of Santa Barbara has found it necessary to send a representative of the council, Mr. J. J. Callahan, to Washington, D. C., to interview and present its problems to the proper authorities. Mr. Callahan will be accompanied by Mr. C. W. Bradbury, until recently the chairman of the Board of Supervisors of Santa Barbara County, and still a member of the board, who also is making the trip to Washington to present this matter to the proper authorities by a public demand of the people of the southern portion of Santa Barbara County.

Mr. Callahan and Mr. Bradbury will call upon you, explaining in greater detail than I have been able to, the critical situation with which we are faced, and I hope and trust that you will help in every way you can to have an appropriation made, and authority given for the dredging of the harbor upon the same terms under which the work has previously been done, and at the earliest possible date.

Respectfully yours,

NORRIS MONTGOMERY, *Mayor.*

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, March 20, 1952.

Hon. WILLIAM F. KNOWLAND,
United States Senate,
Washington, D. C.

DEAR SENATOR KNOWLAND: Further reference is made to your letter of March 4, 1952, and its accompanying communication from Mayor Norris Montgomery, of Santa Barbara, Calif., concerning the need for maintenance dredging at Santa

Barbara Harbor. By letter of this office dated March 6, 1952, receipt of your inquiry was acknowledged and you were advised that information thereon would be furnished at an early date.

As stated by Mr. Montgomery the breakwater at Santa Barbara Harbor was constructed by local interests. In 1928 a detached breakwater was provided. However, this detached breakwater trapped sand to such an extent that the breakwater was connected to the shore in 1930. Sand progressively filled the space upcoast of the structure and began traveling around it thus creating a shoal in the harbor by 1933. The River and Harbor Act approved August 30, 1935, provided for a Federal project for maintenance by dredging of present depths into the harbor formed by the locally constructed breakwater. The initial dredging under this project in 1935 was accomplished by a hopper dredge and the dredged materials were disposed of at sea. Subsequent dredging under the above-mentioned authority, at intervals of about 2 years, has been accomplished by a pipeline dredge, the dredged materials being disposed of on the downcoast beaches to place the sand in a position to nourish the existing beaches. The additional cost incurred by accomplishing the work on the latter basis was borne by local interests through the contribution of funds under the provisions of section 4 of the River and Harbor Act approved March 4, 1915. The latest maintenance work at this locality was accomplished in 1949.

The River and Harbor Act approved March 2, 1945, authorized the modification of the existing project for Santa Barbara Harbor to permit maintenance of the harbor by means of a fixed sand-intercepting plant to be provided and operated by and at the expense of local interests; the United States to make available for the operation of the plant an amount not to exceed $30,000 annually, the presently approved estimated annual cost of maintenance, wherever funds have been allotted for such purpose; provided that there shall be deducted from such funds the actual cost of harbor maintenance found necessary, if and when the intercepting plant has been installed. To date, no action has been taken by local interests to construct the fixed sand intercepting plant. Previous maintenance at this locality has been accomplished under the project as authorized by the 1935 River and Harbor Act.

The question of accomplishing maintenance dredging to meet the needs of the Naval Reserve Training Center facilities at Santa Barbara has been the subject of correspondence with the Department of the Navy. Available information indicates that present channel conditions meet their immediate requirements. Unless an unusual increase in the rate of shoaling occurs it is anticipated that dredging for their purposes will not be required for a period of about 2 years.

The need for performing some maintenance dredging, as well as the incidental provision of a supply of sand to nourish the beaches is appreciated. However, under our reduced civil-works program for maintenance and improvement of river and harbor projects, effected in the fall of 1950, it has been necessary to limit work to project features of greatest importance to defense and essential civilian requirements. Maintenance of navigation facilities for recreational purposes, where the benefits are of a local nature or for small volumes of general commerce, under present conditions must of necessity be deferred. The reduced maintenance program for this fiscal year, as submitted to Congress, provided funds to meet only the essential needs of commerce at the important deeper draft harbors and major inland waterways. As a result, it will be necessary that on many of the less extensively used projects throughout the country navigation interests will have to schedule their activities so as to utilize the facilities which exist at these localities.

You may be sure that this office recognizes the importance and benefits of maintaining our authorized navigation improvements and I may assure you that work on this project will be programed as soon as conditions permit such an action.

The enclosure accompanying your letter is returned herewith as requested.

Sincerely yours,

C. H. CHORPENING,
Brigadier General, USA,
Assistant Chief of Engineers for Civil Works.

LETTER IN REGARD TO CALIFORNIA FLOOD-CONTROL PROJECTS

Senator KNOWLAND. Mr. Chairman, I have a letter from Congressman Leroy Johnson dealing with the flood-control problems that are

before us. I do not want to take up the time of the committee now, Mr. Chairman, but would like to ask that they go in the record.

Senator ELLENDER. They will be placed in the record.

(The letter referred to follows:)

HOUSE OF REPRESENTATIVES,
Washington, D. C., May 12, 1952.

Hon. KENNETH MCKELLAR,
Chairman, Senate Appropriations Committee,
Washington 25, D. C.

MY DEAR SENATOR MCKELLAR: I wish to take this means to urge your honorable committee to take favorable action on the California flood-control program presented by the California State Water Resources Board.

The board, in my opinion, has presented a realistic State-wide program, showing a sympathetic understanding of the national budgetary problem, with which we Members of the Congress are so much concerned.

I am personally acquainted with many of the works and I can assure your honorable committee that they are projects which will be of great benefit to the Nation, providing flood control to protect the lives and wealth-producing properties of our citizens and producing new sources of electric energy and irrigation water needed by our expanding defense economy.

I am convinced the program of the California State Water Resources Board is the bare minimum which should be voted by the Congress.

Your usual sympathetic consideration of the problems of our State will be greatly appreciated.

In connection with the California program, I would like to mention a few projects with which I am very familiar.

San Joaquin River levees: The levees on this river are badly in need of repair. The farmers along the river have been subjected to recurring floods for a number of years. The area in San Joaquin County west of the city of Manteca has suffered great loss because of these floods. We hope that citizens in this area may get needed and deserved relief. In the President's budget there is nothing allocated for this purpose. The California Water Resources Board recommended $100,000 for advanced planning. I pray that you will allow at least this small amount so a comprehensive plan may be developed by the engineers which will insure the lands mentioned against floods. These lands have a high market value and the crops raised on them are fabulous.

New Melones Dam: This is a dam proposed to be built on the Stanislaus River, one of the streams flowing from the Sierra Nevada Mountains into the San Joaquin River. This dam will have some flood-control features, which will help solve the flood problems of the San Joaquin. The water resources board recommended $25,000 for advanced planning. I hope this will be allowed. Your committee has always been liberal on giving planning money, so I feel optimistic on this project.

Hogan Dam: The city of Stockton built the Hogan Dam at a cost of over $1½ million. The proposal is to raise it, to provide storage for irrigation and additional flood control for the lands along this river, including the city of Stockton. Although nothing is in the budget for this, I think something should be awarded so that a comprehensive plan, which will provide for the ultimate development and utilization of the waters of the Calaveras River, may be prepared for this dam.

Merced stream group: This is a group of streams that flow into the San Joaquin. In times of great rains or warm rains on the Sierra snows, these flash streams provide a real flood menace and overburden the San Joaquin. The water resources board recommended $645,000 for this group, indicating to this board, which has a comprehensive grasp of the needs of the entire interior valley of California for flood control and conservation of water, how serious the situation really is. We hope that the committee can find its way clear to appropriate at least a part of this sum.

Cherry Valley Dam, on one of the tributaries of the Tuolumne River, is already under construction. The budget contains an item of $2,514,000 for this project. We hope this will be granted by the committee. The project is also helpful to people along the San Joaquin River in Stanislaus and San Joaquin Counties who need flood protection. It will also aid the Modesto irrigation district and

the city of San Francisco in developing its water for irrigation and for domestic and hydroelectric uses.

Folsom Dam: The budget of the President recommends the full amount recommended by the California Water Resources Board for this project, $18,130,000. I hope the committee will decide to follow this recommendation. This project is a multiple one providing flood control, conservation of water for irrigation and domestic purposes, and hydroelectric development. Witnesses have described the detailed benefits this dam will provide.

I wish to call one general matter, which I think merits great thought and consideration, to the attention of this committee. As you know, the summer waters, which are used for irrigation and electric-power development in California, come from the deep snow banks of the Sierra Nevada Mountains. This year, 1952, the snow pack is three times as deep as it is normally. Part of the snow is on the lower levels of the mountains and on the so-called foothills that rise from the San Joaquin Valley and constitute the lower elevations of the Sierra Nevada range.

If, perchance, there should be a warm rain on these lower levels of the Sierras in California, we could have some very devastating floods, which we did have last year and a number of other times to my personal knowledge. All this points up the fact that to safeguard this tremendously rich and productive area, we must have some help in the way of study money to work out a sound plan to protect the lands against floods. The floods also could affect several cities, especially the cities of Stockton and Sacramento, due to their low altitude. Every step taken to control the flow of any stream channeling into the San Joaquin or the Sacramento Rivers adds flood protection to rich farm lands and to the cities on these streams. A bad flood in Stockton or Sacramento could ruin millions of dollars worth of property. Last year, the flood washed out railway and highway bridges, the replacement for which will cost $30,000,000. Also, much private property was damaged.

Elmo E. Ferrari, director of the port of Stockton, has recommended funds to enlarge the turning basin of the deep-water channel terminating in Stockton, Calif. It happens that I have a very intimate personal knowledge of the port of Stockton because I spent 8 years as the lawyer for the city of Stockton and the State of California at the time this project was built. The project was authorized by the Sixty-eighth Congress, second session, in House Document 54. Briefly, the project extends from Suisun Bay (in the upper reaches of San Francisco Bay) to the city of Stockton. It follows the San Joaquin River partially, and a portion of the channel is an artificial one dredged by the United States Army Engineers. The depth of the water in the channel and at the terminal is 34 feet. Practically every vessel plying the seas may now enter the port of Stockton.

This channel has a very important function in the national-defense picture. Stockton is served by three transcontinental railroads, all of which have access to the belt-line railroad serving the port of Stockton. Thus cargo may flow freely from any railroad to the vessels docking at the port. Within 7 miles of the port is the Sharpe General Depot, operated by the Army. This depot is the largest in-transit depot of its kind in the West. From here equipment, munitions, and so forth are shipped, in part, via the port of Stockton to stations in the Far Eas, Alaska, and to other points in the Pacific.

During World War II the Army took over the entire terminal of this port and operated it as a shipping point for millions of tons of munitions, automobiles, and the multitudinous articles used by the fighting forces. Adjacent to the port, across the San Joaquin River, is a large naval installation known as the Stockton Annex. It is a supply depot of the Navy and has a dock 175 feet long.

Since the port was returned to the city of Stockton upon the completion of the war, considerable civilian cargo has been developed. The tonnage per year is going up steadily. Because of the depth of the channel and the size of the vessels docking at the port of Stockton, the turning basin has become inadequate for the proper convenience of shipping lines entering the port. The plea of the port is that the turning basin may be enlarged and some other improvements made, all of which are set forth in the statement by the port director.

I sincerely trust that the committee may find it possible to give a small amount for the very worthy and necessary improvement of this important waterway.

The Sacrametna River ship channel was authorized by Public Law 525, Seventy-ninth Congress, second session. The purpose was to deepen and to

develop a channel from deep water in the upper reaches of San Francisco Bay to the city of Sacramento. The proposed depth is 30 feet.

Your committee has appropriated $2,298,758.12 for the project to date. Appropriations were made in 1948, 1949, 1950, and 1951.

These Federal appropriations liberated $4,500,000 of local money, which has been provided by the Sacramento-Yolo port district ($3,750,000) and the State of California ($750,000). The turning basin has been built and we believe that it would be good business to continue the work on this channel. Furthermore, a large grain terminal was erected by private money in the vicinity of the turning basin. Also, the port district has built 4 miles of belt-line railroad connecting with the Southern Pacific and the Western Pacific.

There has been a threat to terminate terminal rates to Sacramento because of the fact that Sacramento is not an actual port capable of receiving oceangoing vessels. The purpose of this bill is to remedy the situation; namely, to have a waterway which will permit oceangoing vessels to dock at the port of Sacramento.

I realize the serious problems that confront this committee in voting funds. But this port has a very appealing position. We hope that in the interests of good business that an item may be awarded to this port for construction.

The following stupendous military installations are within short range of this port: Sacramento Air Depot, also known as McClellan Air Base; Sacramento Signal Depot, and Mather Air Force Base. These installations are large, and the signal depot and McClellan Air Base receive and transport a great deal of heavy matériel. In fact, the McClellan Air Base now has a private wharf on the Sacramento River water front and undoubtedly would be a user of the deep-water channel.

Your consideration of these worthy and necessary projects is appreciated.

Sincerely yours,

LEROY JOHNSON,
Member of Congress.

REFUSE DEPOSITS IN NAVIGABLE WATERS

Senator KNOWLAND. Finally, Mr. Chairman, I have a communication addressed to Senator Bridges. This has nothing to do with the California problems, but is a communication addressed to him under date of March 31, 1952. To that is attached a letter to General Chorpening and his reply dated March 28, 1952, regarding certain charges which are made for materials going into the rivers.

Senator ELLENDER. Without objection, that will be inserted in the record.

(The communications referred to follow:)

UNITED STATES SENATE,
COMMITTEE ON APPROPRIATIONS,
March 31, 1952.

Senator STYLES BRIDGES,
Senate Office Building, Washington, D. C.

DEAR SENATOR BRIDGES: Enclosed is a copy of a letter I have received from General Chorpening in response to a telephone request I made, together with a copy of a letter I have today written to him. This program of the Army engineers was something that I had not known about before and came to me from a person who had knowledge of the "assessment" being levied on industry in various sections of the country.

As yet, I do not have sufficient facts to know whether or not the program is justified, but it seems to me that it will be worth while going into. If the law has so provided since 1899, I am a little at loss to understand why the engineers should have failed to act until quite recently, if that be the fact. At any rate, I think that it is something which the Appropriations Committee should have full knowledge.

With best personal regards, I remain,

Sincerely yours,

WILLIAM F. KNOWLAND.

MARCH 31, 1952.

Brig. Gen. C. H. CHORPENING,
Assistant Chief of Engineers for Civil Works,
Office of the Chief of Engineers, Department of the Army,
Washington, D. C.

DEAR GENERAL: Your letter of March 28 has been received, and I wish to thank you for sending me the background material in response to my telephonic request.

I would like to have you furnish me at your earliest convenience the amount of funds received by the Corps of Engineers from this program for the fiscal year 1950, 1951, and 1952 to date, or at least or the first 6 months of the year.

Also I would appreciate having you indicate where these funds appear, if they do, in the appropriation bill or in the budget request submitted to the Congress.

With best personal regards, I remain,

Sincerely yours,

WILLIAM F. KNOWLAND.

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, March 28, 1952.

Hon. WILLIAM F. KNOWLAND,
United States Senate, Washington, D. C.

DEAR SENATOR KNOWLAND: In response to your telephone request, the following information is furnished with respect to the program being carried out by the Corps of Engineers for investigating the sources of recurring shoaling which appears to be due to unnatural causes in navigable waters of the United States, attempting to fix the responsibility therefor, and negotiating agreements with the responsible parties with a view to effecting removal of the shoals without cost to the United States.

Section 13 of the River and Harbor Act of March 3, 1899 (33 U. S. C. 407) prohibits the deposit into navigable waters of the United States of "refuse matter of any kind or description whatever other than that flowing from streets and sewers and passing therefrom in a liquid state." This law, which is administered by the Secretary of the Army through the Corps of Engineers, has been construed as prohibiting the discharge of only those materials that are obstructive or injurious to navigation. The Water Pollution Control Act of June 30, 1948 (33 U. S. C. 466–466j), which vests in the Surgeon General of the Public Health Service certain responsibilities and authority relating to water-pollution control but recognizes the primary responsibilities and rights of the States, has for its purpose the abatement of water pollution in the interests of the public health and welfare.

The Corps of Engineers is interested as a rule in preventing obstructive deposits or in obtaining their removal after they have occurred rather than in attempting through criminal action to subject the responsible parties to fines and imprisonment. Although the removal of unlawful deposits may be sought in a suit for an injunction, every effort is made initially to reach equitable agreements by negotiation rather than resorting to litigation. The removal of shoals caused by illegal deposits is of great benefit to navigation, and when the shoals occur in waterways maintained under projects authorized by Congress their removal by the responsible parties enables the Corps of Engineers to utilize its dredging equipment on other necessary work.

The program is proving very successful in the case of shoals resulting from flue dust sedimentation. In 1948 the Chicago district began extensive studies to determine the causes of recurring shoaling in various harbors and connecting channels of Lake Michigan. It was noted that such shoaling was very pronounced in the vicinity of steel mills. Solids found in the discharge of iron- and steel-making plants result from rolling and blooming mill and, more particularly, blast-furnace operations. Blast-furnace gas contains approximately 5 percent of the original ore as solids. Most of these solids are removed by a method of washing requiring large quantities of water. The steel industry in the last 20 years has greatly expanded its production generally without corresponding increases in flue-dust collectors, thickeners, and filters, and this has resulted in great overloads of such equipment. Therefore, the effluents today contain much greater quantities of iron-bearing solids than were originally expected.

By the spring of 1949 a technique and procedures were developed which, after conferences with various steel company representatives, resulted in their assumption of responsibility for the removal of the shoals. The steel companies were requested to submit long-range programs for reducing the objectionable deposits to a minimum. These companies are now reviewing and formulating plans that will reduce flue-dust shoaling and also permit recovery of a large volume of iron-bearing solids which are currently being lost to our economy. There is some evidence that this planning is being done on an industry-wide basis. Despite large expenditures by the steel industry for dredging and for installing new equipment, the new reclaiming equipment is expected ultimately to bring about large savings by preventing the loss of valuable iron-bearing material.

As a result of the success of the Chicago district in dealing with the flue-dust problem, and following receipt of a report by the Detroit district that the Ford Motor Co., which has been requested to remove a shoal at the mouth of a sewer emptying into the Rouge River from its Dearborn, Mich., plant, had agreed to restore project depths adjacent to the sewer outlet and was planning an extensive program to eliminate or reduce its pollution problem over the next 2 or 3 years, instructions were issued by this office to all division engineers on June 22, 1951, to investigate the most likely sources of recurring shoaling in improved harbors and waterways in each district which appears to be due to unnatural causes with a view to fixing pecuniary responsibility for dredging, and to submit complete reports of the results of the investigations and the expected results of negotiations with representatives of the industries believed to be responsible by July 1, 1952. A preliminary report, covering Cleveland harbor only, has already been submitted by the Buffalo district, and further reports are to be submitted by July 1, 1952, by the New York, Savannah, Galveston, Nashville, Pittsburgh, Buffalo, and Seattle districts.

Until the final reports are received this office will be unable to estimate the annual costs of the dredging involved in removing shoals caused by illegal deposits. That they may be considerable, however, is indicated by the fact that, from March 1951 to date, the United States Steel Co., the Inland Steel Co., and the Youngstown Sheet & Tube Co. in the Chicago area have accepted responsibility for the removal of shoals estimated to cost $1,393,000.

Sincerely yours,

C. H. CHORPENING,
Brigadier General, USA,
Assistant Chief of Engineers for Civil Works.

Senator ELLENDER. If there are no further questions, the committee will stand in recess until 10:30 tomorrow morning.

General CHORPENING. Mr. Chairman, may I ask one question?

Senator ELLENDER. Certainly, General.

General CHORPENING. Was it desired that we introduce into the record a statement in connection with dam 10, which was mentioned by Congressman Secrest?

Senator KNOWLAND. Yes.

Senator ELLENDER. I presume Senator Taft is going to appear.

Senator KNOWLAND. Probably in view of the Congressman's statement, it would be well for the engineers to have some statement in the record so that we will have a balanced report.

(The information requested appears on p. 423.)

Senator ELLENDER. Very well, the committee will be in recess.

(Whereupon, at 4:15 p. m., Monday, May 12, 1952, a recess was taken, the subcommittee to reconvene at 10:30 a. m., Tuesday, May 13, 1952.)